EAST TENNESSEE

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East Tennessee Region

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IMPORTANT AQUATIC HABITAT AREAS – EAST TENNESSEE

Locations - Important aquatic habitat areas are located in the channel and floodplains of several major rivers and smaller streams throughout East Tennessee. See map of aquatic projects on the following page

Description - Priority lands include the stream or river channel, riparian zones, and floodplains. Agriculture is the predominant land use in the lower valleys of this region. Livestock and hay and are common products, although there are several tomato farms in the Nolichucky and Pigeon river watersheds. Along the western slopes of the Appalachian Mountains there are more forested lands and more development for resort and primary housing.

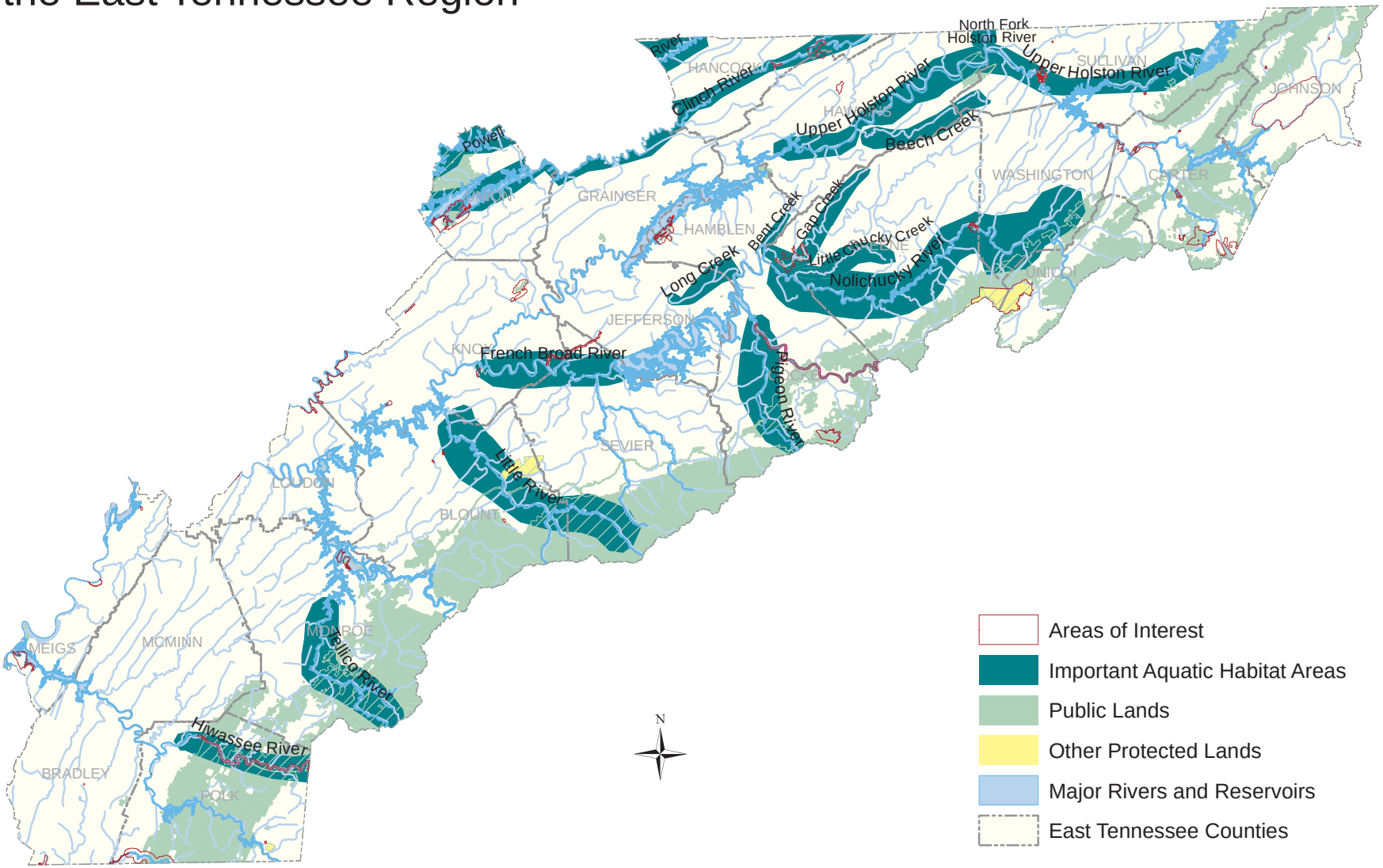
Significance - Conservation of these waterways and their adjacent lands is needed to maintain the high biodiversity of aquatic species in these rivers. For example, the Clinch, Powell, and Holston rivers are among most diverse and unique aquatic communities on the continent. These rivers have been identified by several conservation agencies (e.g. TWRA, TNC, WWF) as warranting the highest priority for conservation needs. Most of these species (fish and mussels) are endemic to this region, meaning they can be found nowhere else in the world. Several Tennessee species have been lost, and without proactive measures to protect habitat, more losses are expected.

Land Management Strategy - Biologists have identified the corridor along these waterways as critical habitats. Although rivers are threatened by stressors throughout the watershed, these lands in the floodplain have the greatest ability to protect aquatic resources. The goal of land management projects would be to establish or protect wide forested buffer zones along the river corridor. Projects would also promote the use of best management practices for farming, forestry, and construction projects.

Lands that need to be acquired - Given the large area of these waters and floodplains, it is not possible to target all the important areas for acquisition. Working with existing landowners on projects designed to improve habitats may be more effective. For example, the NRCS could focus on these areas using Farm Bill Programs to improve aquatic habitats.

Potential Partners - US Fish and Wildlife Service, Natural Resources Conservation Service, TNC, Word Wildlife Fund, Tennessee Scenic Rivers Association, and local watershed organizations.Insert map of aquatic habitats

Important Aquatic Habitat Areas for the East Tennessee Region



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ARCHAEOLOGICAL SITES - EAST TENNESSEE

Location - Blount, Bradley, Carter, Cocke, Grainger, Greene, Hamilton, Hancock, Hawkins, Jefferson, Johnson, Knox, Loudon, McMinn, Meigs, Monroe, Polk, Sullivan, Unicoi, Union, and Washington counties.

Description - Most of the 22 counties in the THCP's East Tennessee region are in one of two physiographic regions, the Unaka Mountains and the Valley and Ridge. The major watercourse in this larger region is the east portion of the Tennessee River. Its major tributaries include the Clinch, Holston, French Broad, Little Tennessee, and Hiwassee rivers. Both prehistoric and historic-period occupation was focused on the lower elevations associated with these waterways. Especially in the mountains to the east, much of the land is federally owned, and a majority of the archaeological sites recorded in the easternmost counties of the THCP region already have protection status based on this federal ownership.

Prehistoric Sites - Prehistoric archaeological sites recorded within these two physiographic regions are classified into four major time periods: (1) Paleo-Indian, 10,000 B.C. to 8000 B.C.; (2) Archaic, 8000 B.C. to 1500 B.C.; (3) Woodland 1500 B.C. to A.D. 800; and (4) Mississippian, A.D. 900 to A.D. 1500. These sites range in size and complexity from relatively small Paleo-Indian and Archaic camps to substantial Mississippian mound centers. The prehistoric inhabitants also utilized a variety of caves to: (1) display their art (caves as portals to the underworld); (2) acquire resources, such as chert and minerals; and (3) use as seasonal living quarters. In addition to these prehistoric occupations, protohistoric Cherokee towns visited and described by early European explorers (and later settlers) are also present along select major river drainages.

As with other regions of the state, the sites included in the attached table represent significant cultural resources in danger of destruction due to a variety of man-made (agriculture, construction) and natural (erosion) forces. The THCP will provide an important means to acquire some of these non-renewable resources before they are lost forever.

For example, the McCrosky/Henderson Farm site (40SV9) in Sevier County has yielded evidence for multiple occupations, including Mississippian and Cherokee components. Pressure to develop this large site (currently in private ownership) has been mounting for years. Similarly, the Great Tellico site (40MR75) in Monroe County represents a substantial Cherokee town in private ownership that has remained relatively undisturbed. Great Tellico is the best example of a Cherokee town left in East Tennessee, but as always, is under the threat of future development.

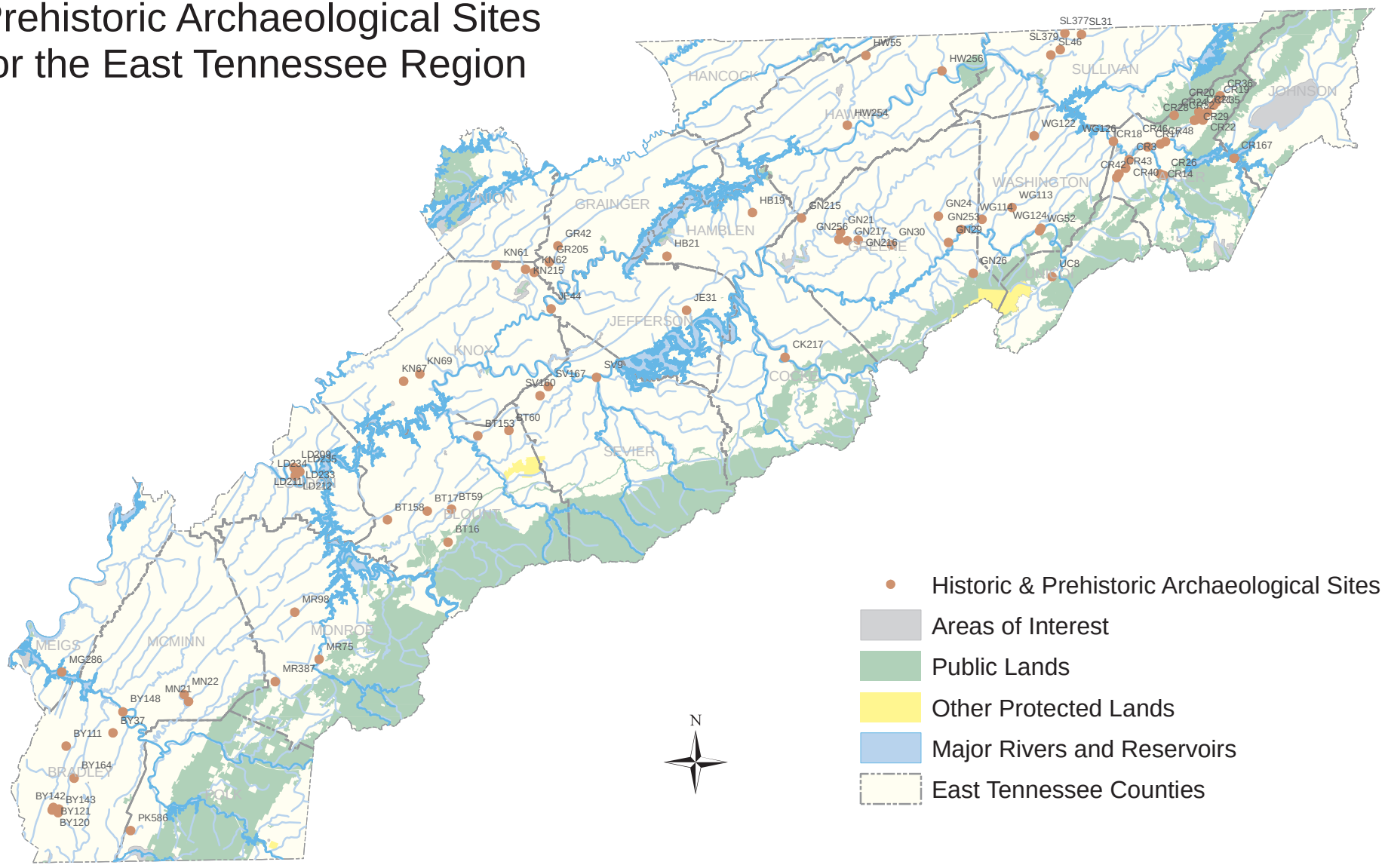
A unique entity present in Washington County is a world-class fossil deposit of late Miocene to early Pliocene age (4.5 to 7 million years ago) known as the Gray Fossil site (40WG122). Although the State of Tennessee owns much of this site, the fossil deposit extends into a tract currently in private ownership.

Historic-Period Sites - Tennessee's earliest historic-period settlement began in upper East Tennessee in the 1770s, gradually spreading to the south and west. The Cherokee retained control of lower East Tennessee until after 1800, but by the 1830s, non-Native American settlement was complete across the region. A few sites relating to this early settlement period, including several frontier stations and forts, are listed on the attached table. An important early industry in this region was the manufacture of iron, but unfortunately there has been no systematic survey of this theme for the entire region. Iron industry sites were included as part of a large-scale survey conducted several years ago in Carter County, and this particular survey makes it possible to list a number of important historic-period Carter County sites, representing a variety of cultural activities. The Civil War had a major impact on portions of East Tennessee, and past survey work concerning this theme is reflected in the substantial number of Civil War military sites shown on the table. A completed statewide survey of historic-period pottery making provides the basis for including several important sites representing this industry. Similar studies of topics such a gun making and the operation of mills, are reflected by other sites on the table.

Land Protection Needs – 1,267 acres at an estimated cost of $5,600,000.

Potential Partners – The Archaeological Conservancy, Tennessee Council for Professional Archaeology, Tennessee Wars Commission

Historic Archaeological Sites and Prehistoric Archaeological Sites for the East Tennessee Region



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East Tennessee – Archaeological Sites

County	Site Number	Estimated Acreage	Name
Blount	40BT16	5	David L. Smith Pottery
Blount	40BT17	7	Grindstaff Pottery
Blount	40BT59	10	Samuel Keller Gun Shop
Blount	40BT60	10	Joseph Bogle Gunshop
Blount	40BT153	10	Martin's Station
Blount	40BT158	10	Samuel Henry's Station
Bradley	40BY37	100	Fort Foster
Bradley	40BY111	20	Bigsby Creek/Sharp (prehistoric)
Bradley	40BY120	20	Blue Springs # 5 (CW)
Bradley	40BY121	20	Blue Springs # 6 (CW)
Bradley	40BY142	20	Blue Springs # 27 (CW)
Bradley	40BY143	20	Blue Springs # 28 (CW)
Bradley	40BY164	5	Raht House (CW)
Bradley	40BY148	5	Henegar House (CW)
Carter	40CR3	10	Fudd Campbell (prehistoric)
Carter	40CR14	10	Ellis Mill
Carter	40CR17	15	Tipton Mills
Carter	40CR18	10	Watauga Mill
Carter	40CR19	5	Stonedam Forge
Carter	40CR20	15	Sadie Furnace
Carter	40CR21	15	Union Furnace
Carter	40CR22	15	Muddy Branch Furnace
Carter	40CR24	15	Little Stony Creek Furnace
Carter	40CR26	15	O'Brien's Furnace
Carter	40CR28	5	D. Richie Blacksmith Shop
Carter	40CR29	5	J. Richie Blacksmith Shop
Carter	40CR32	5	Lewis Cobbler Shop
Carter	40CR35	5	J. Taylor Mill
Carter	40CR36	5	Nidiffer Mill
Carter	40CR40	5	M. Patton Powder Mill
Carter	40CR42	5	Anderson Mills
Carter	40CR43	5	William-Hyder Mill
Carter	40CR46	5	Andrew Greer House
Carter	40CR48	5	Andrew Johnson House
Carter	40CR167	15	Fort Hill (CW)
Cocke	40CK217	100	McKay's Fort Complex
		0	

County	Site Number	Estimated Acreage	Name
Grainger	40GR42	15	Jarnigan Farm
Grainger	40GR205	10	Shield Station
Greene	40GN21	5	Shaffer Pottery
Greene	40GN24	5	Grim Pottery
Greene	40GN26	5	Click Pottery
Greene	40GN29	7	Ripley Pottery
Greene	40GN30	7	Vestal-Reynolds Pottery
Greene	40GN215	25	Bulls Gap (CW)
Greene	40GN216	25	Blue Springs Battlefield (CW)
Greene	40GN217	5	Burnside's Headquarters (CW)
Greene	40GN253	10	Earnest Fort House
Greene	40GN256	7	Jackson Campbell Pottery
Hamblen	40HB19	15	Hayslope (CW)
Hamblen	40HB21	15	Watkins House (CW)
Hancock		0	
Hawkins	40HW55	5	Anderson Pottery
Hawkins	40HW254	10	Thomas Amis Fort
Hawkins	40HW256	15	Patterson's Station
Jefferson	40JE31	5	Noonkesser-Potts Pottery
Jefferson	40JE44	5	Strawberry Plains (CW)
Johnson		0	
Knox	40KN61	5	Floyd-Graves Pottery
Knox	40KN62	5	Grindstaff Pottery
Knox	40KN67	10	Cavett's Station
Knox	40KN69	5	Lonas Pottery
Knox	40KN215	15	Sawyer's Station
Loudon	40LD209	20	Loudon Defenses # 1 (CW)
Loudon	40LD211	40	Loudon Defenses # 2 (CW)
Loudon	40LD212	20	Loudon Defenses # 3 (CW)
Loudon	40LD233	15	Loudon Defenses # 4 (CW)
Loudon	40LD234	15	Loudon Defenses # 5 (CW)
Loudon	40LD235	10	Loudon Defenses # 6 (CW)
McMinn	40MN21	10	T. B. Love Pottery

County	Site Number	Estimated Acreage	Name
McMinn	40MN22	10	J. M. Love Pottery
Meigs	40MG286	15	Cherokee Agency
Monroe	40MR75	75	Great Tellico (Cherokee)
Monroe	40MR98	10	Pearson-Black-Evans Pottery
Monroe	40MR387	20	Mud Glyph Cave (prehistoric)
Polk	40PK586	10	Fort Marr
Sevier	40SV9	50	McCrosky/Henderson (prehistoric)
Sevier	40SV160	10	William McGaughey's Station
Sevier	40SV167	7	Stansbury-Williams Pottery
Sullivan	40SL31	7	Cain Pottery
Sullivan	40SL46	15	Eaton's Fort
Sullivan	40SL377	10	John Robert's House/Station
Sullivan	40SL379	10	Looney's Fort
Unicoi	40UC8	5	Bean's Gunshop
Union		0	
Washington	40WG52	20	Decker Pottery
Washington	40WG113	10	Embree House
Washington	40WG114	10	Gillespie House
Washington	40WG122	20	Gray Fossil
Washington	40WG124	20	Brown's Settlement
Washington	40WG126	20	Dungan's Mill
Total		**1,267**	

[1]State ranks relate to rarity within Tennessee: S1=extremely rare and critically imperiled, S2=very rare and imperiled, S3=Rare and uncommon.
[1] Global ranks are similar to State Ranks, but relate to rarity on a global scale.
[1] Legal listing in Tennessee: E=endangered, T=threatened, D=deemed in need of management.
[1] Legal listing at the federal level: LE=endangered, LT=threatened, C=candidate for listing.

STREAM FISHING ACCESS – EAST TENNESSEE

Locations - The aquatic projects map indicates locations where access is needed on 31 important stream fisheries (yellow asterisks and yellow-lined streams).

Descriptions - There are two distinct types of property needed to provide fishing access: 1) boat access points for launching small boats, and 2) linear tracts in and adjacent to streams for wade fishing access.

A total of 29 boat access points have been identified on rivers across the region. These areas were chosen to complement existing access areas and improve the value of recreational fisheries. All areas are located adjacent to the named river. The exact location is not critical; it is possible that another parcel located within one mile could be substituted for the indicated location. Boat access points would be relatively small parcels (up to 2 acres) located in the floodplain, preferably near existing roads.

Wade fishing access is needed on 24 streams. These would provide parking for a few vehicles and provide access for anglers to walk in and along the stream for 1-3 miles. Areas adjacent to bridges would be ideal locations for small parking areas.

Recreational Significance - East Tennessee has a long tradition of providing stream and river fisheries for smallmouth bass, rock bass, trout, and catfish. Anglers must have the landowner's permission to wade and fish in streams. The task of contacting multiple landowners and getting permission can be overwhelming for many anglers, especially those that are not nearby residents. Establishing public corridors would greatly increase the recreational value of these fisheries. With the appropriate management, these streams can attract many more anglers and still provide high quality angling opportunities.

Most rivers in this region have some public access for boats or canoes, but there are still vast reaches of river that are not accessible. These access points are used by anglers and recreational paddlers. Some of the existing access areas are owned by outfitters that operate canoe rental and shuttle services. Additional public access areas would complement these enterprises by providing more launching options. More public access would allow anglers to avoid high-use paddling areas. Public areas would allow anglers access to fish even when the outfitters are closed on weekdays and in the off-season.

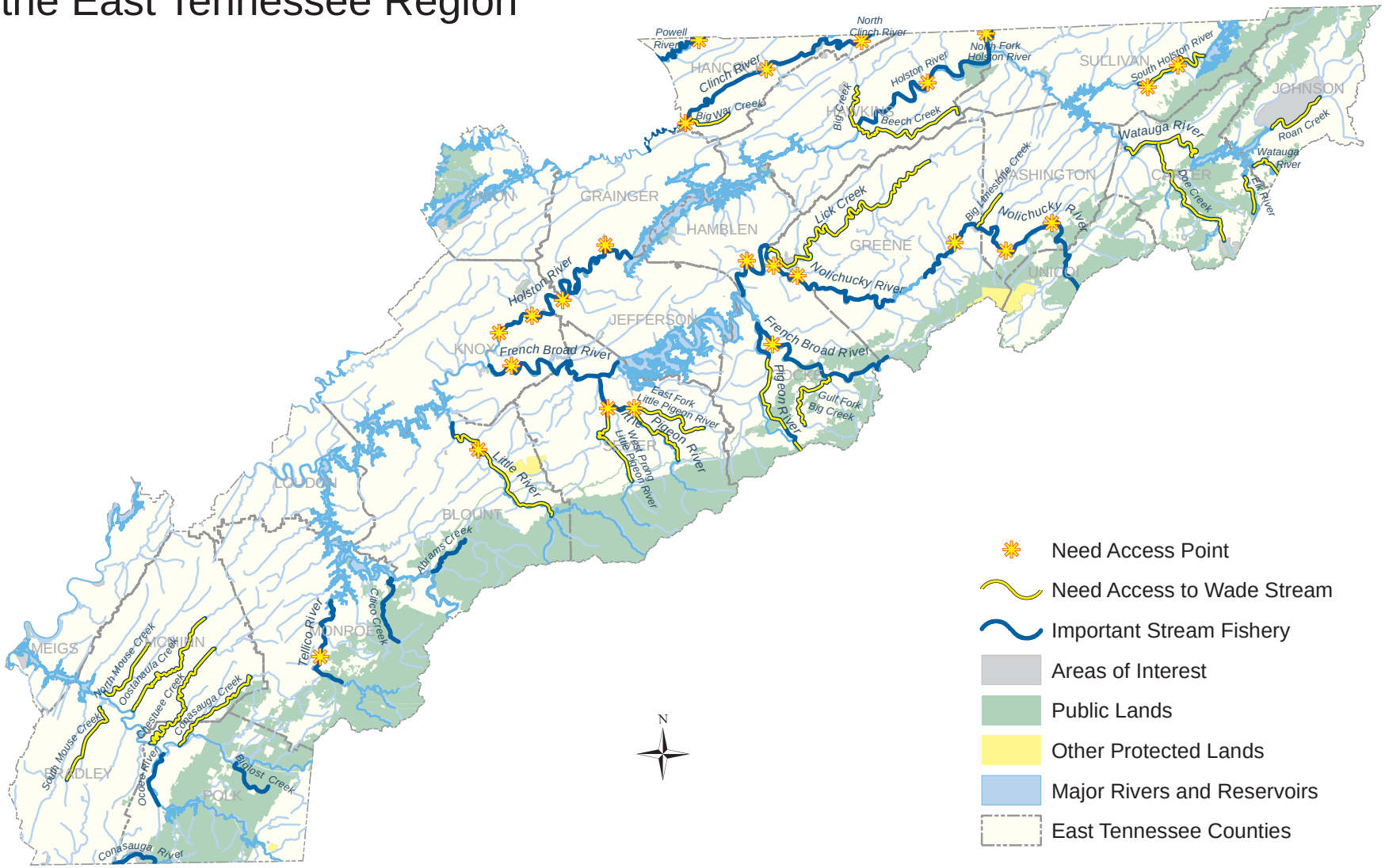
The stream corridors needed to provide wade fishing access include the stream channel and the adjacent riparian zones. Riparian and instream habitats are essential for supporting aquatic life in streams. Public ownership of these important habitats would ensure their protection and provide opportunities for enhancement.

Strategy - TWRA would establish a small, gravel parking area at all access areas, and provide a narrow gravel or concrete ramp at boat access points. TWRA would develop access areas in a manner that would minimize the footprint on the land and maximize the amount of forested riparian vegetation.

Land Protection Needs – 1,365 acres at an estimated cost of $30,982,600. See table on following page.

Potential Partners – TPGF, TWRA, TU, Tennessee Scenic Rivers Association, local tourism boards, and local watershed organizations.

Stream Fishing Access Project for the East Tennessee Region



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Stream Fishing Access Needed in East Tennessee

Watershed	Stream	County of needed access	Boat access needed (#)	Wade access needed (miles)	Total Acres	Cost/ Acre	Land Cost	10% Survey & Closing Fees	Total Cost
Powell	Powell River	Hancock	1	0	2	31,000	62,000	6,200	68,200
Clinch	Clinch River	Grainger/Hancock	3	0	6	6,000	36,000	3,600	39,600
Clinch	Big War Creek	Hancock	0	2	36	6,000	216,000	21,600	237,600
Holston	South Holston River (Trout Section)	Sullivan	2	8	149	50,000	7,450,000	745,000	8,195,000
Holston	Holston River (Upper)	Claiborne/Hancock/Grainger	1	0	2	30,000	60,000	6,000	66,000
Holston	Holston River (Lower/Trout Section)	Grainger/Jefferson/Knox	4	0	8	30,000	240,000	24,000	264,000
Holston	North Fork Holston River	Hawkins/Sullivan	1	0	2	30,000	60,000	6,000	66,000
Holston	Big Creek	Hawkins	0	3	54	6,000	324,000	32,400	356,400
Holston	Beech Creek	Hawkins	0	3	54	6,000	324,000	32,400	356,400
Watauga	Watuaga River (Trout Section)	Carter	0	8	145	50,000	7,250,000	725,000	7,975,000
Watauga	Roan Creek	Johnson	0	3	54	6,000	324,000	32,400	356,400
Nolichucky	Nolichucky River	Cocke/Greene/Washington	6	0	12	30,000	360,000	36,000	396,000
Nolichucky	Big Limestone Creek	Washington	0	2	36	6,000	216,000	21,600	237,600
Nolichucky	Lick Creek	Greene	0	3	54	6,000	324,000	32,400	356,400
French Broad	French Broad River (Lower)	Knox/Sevier	1	0	2	30,000	60,000	6,000	66,000
French Broad	French Broad River (Upper)	Cocke	1	0	2	30,000	60,000	6,000	66,000
French Broad	Gulf Fork Big Creek	Cocke	0	3	54	6,000	324,000	32,400	356,400
French Broad	Pigeon River	Cocke	0	8	145	30,000	4,350,000	435,000	4,785,000
French Broad	Little Pigeon River	Sevier	2	3	58	30,000	1,740,000	174,000	1,914,000
French Broad	East Fork Little Pigeon River	Sevier	0	2	36	6,000	216,000	21,600	237,600
French Broad	West Prong Little Pigeon River	Sevier	0	5	90	6,000	540,000	54,000	594,000
Tennessee	Little River	Blount	1	5	92	30,000	2,760,000	276,000	3,036,000
Little Tenn	Tellico River	Monroe	1	0	2	30,000	60,000	6,000	66,000
Hiwassee	Chestuee Creek	Polk/McMinn	0	3	54	3,000	162,000	16,200	178,200
Hiwassee	Conasauga Creek	Polk/McMinn	0	3	54	3,000	162,000	16,200	178,200
Hiwassee	Oostanaula Creek	McMinn	0	3	54	3,000	162,000	16,200	178,200
Hiwassee	North Mouse Creek	McMinn	0	3	54	3,000	162,000	16,200	178,200
Hiwassee	South Mouse Creek	Bradley	0	3	54	3,000	162,000	16,200	178,200
		TOTAL	**24**	**73**	**1,365**		**$28,166,000**	**$2,816,600**	**$30,982,600**

ALCOA MARSH – GREATER AND LESSER SNA

Location – (N35.7898, W83.9606W and N35.7712, W83.9837, respectively) Greater and Lesser Alcoa Marshes are located in Blount County off Hwy 33 approximately 2 miles north of the city of Alcoa.

Description - Located in the Ridge and Valley province, Greater Alcoa Marsh is located within the city of Alcoa at the MacArthur Rd. crossing of Springfield Branch. The marsh is partially spring-fed and partially by Springfield Branch, which also drains the area into Pistol Creek. There are some areas of open water within the marsh. Water levels within the marsh fluctuate greatly with precipitation (5 or 6 feet). Predominant vegetation in the marsh consists of cattail, bulrush, buttonbush, willow, rose mallow, ash, and St. John's wort. As in the Lesser Alcoa Marsh, the vegetation is well interspersed creating good habitat diversity. The Lesser Alcoa Marsh is actually composed of two small marshy areas, which are separated by a hill with a fence running from the railroad to N. Calderwood Rd. Both areas are spring fed and drain into the Pistol Creek and have small areas of open water. The two areas are broken into two fields by the ALCOA management. The southern most field is the 2A field and the northern most is the 2B field.

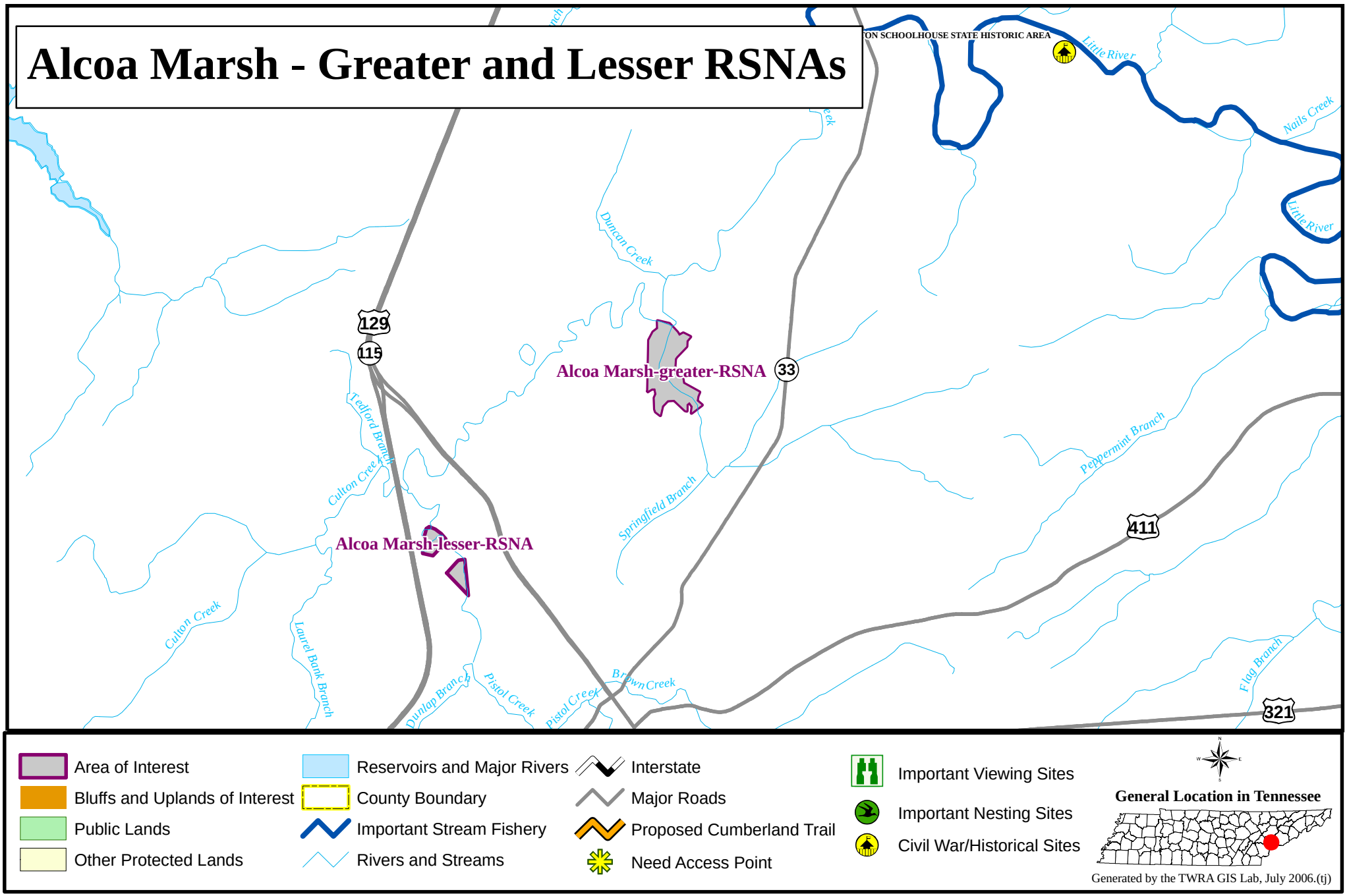
Significance – Site Importance Moderate (B4) – Rare bird elements include: king rail, least bittern, yellow-crowned night-heron, and Virginia rail. One fish element, the flame chub, is also present.

Strategy - The strategy for acquisition at Alcoa Marshes is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare species will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs – 91 needed acres at an estimated cost of $550,000.

Potential Partners – TDEC and the City of Alcoa.

Alcoa Marsh - Greater and Lesser RSNAs



AMBER DARTER DESIGNATED CRITICAL HABITAT

Location - (N34.9978, W84.7564) The Tennessee portion of the Amber Darter Designated Critical Habitat (DCH) is located in Polk and Bradley and includes the Conasauga River from the Hwy 411 bridge in Polk County downstream approximately 3.6 miles to the state line. The balance of the DCH includes approximately 30 miles of the Conasauga River from the state line downstream into Murray and Whitfield counties, Georgia. (See Conasauga State Scenic River map)

Description - The Amber Darter DCH includes this free-flowing portion of the Conasauga River and a 50-meter buffer on both sides of the river, most of which is floodplain. This also incorporates the confluences of several small tributaries in this river reach. The upstream terminus of the DCH abuts the downstream terminus of the Conasauga State Scenic River. According to TDEC-WPC, many streams in the Tennessee portion of the Conasauga River do not meet their "designated uses due to elevated nutrients and pathogens. Pasture {riparian} grazing and septic tanks are the main source of the pollution in this rural district." (TDEC, 305(b) Report, 2002)

Significance - This segment of the Conasauga River contains numerous rare species listed either at the state or federal level, including the imperiled amber darter (*Percina antesella*). Many are endemic to the Conasauga (Coosa) River drainage, and as such, have an extremely limited distribution in Tennessee. The entire segment also is listed as Designated Critical Habitat for the Conasauga logperch (*Percina jenkinsi*).

The following species are noted from this segment:

SCIENTIFIC NAME	COMMON NAME	STATE RANK[i]	GLOBAL RANK[ii]	STATE STATUS[iii]	FED STATUS[iv]
Cyprinella caerulea	Blue Shiner	S1	G2	E	LT
Epioblasma metastriata	Upland Combshell	SH	GH	E	LE
Etheostoma brevirostrum	Holiday (=ellijay) Darter	S1	G2	T	
Etheostoma ditrema	Coldwater Darter	S1	G1G2	T	
Etheostoma trisella	Trispot Darter	S1	G1	T	
Gomphus consanguis	Cherokee Clubtail Dragonfly	S1	G2G3		
Ichthyomyzon gagei	Southern Brook Lamprey	S1	G5	D	
Lampsilis altilis	Fine-lined Pocketbook	S1S2	G2	T	LT
Macrhybopsis sp. 1	Cf. M. Aestivalis	S1	G3G4		
Medionidus acutissimus	Alabama Mocassinshell	S1	G2	T	LT
Medionidus parvulus	Coosa Moccasinshell	S1	G1	E	LE
Noturus munitus	Frecklebelly Madtom	S1	G3	T	
Ophiogomphus alleghaniensis	Alleghany Snaketail Dragonfly	S1	G3Q		
Ophiogomphus edmundo	Edmund's Snaketail	S1	G1G2		
Percina antesella	Amber Darter	S1	G1G2	E	LE
Percina jenkinsi	Conasauga (=reticulate) Logperch	S1	G1	E	LE
Pleurobema chattanoogaense	Painted Clubshell	S1?	G1Q		
Pleurobema georgianum	Southern Pigtoe	S1	G1	E	LE
Pleurobema perovatum	Ovate Clubshell	SH	G1	E	LE
Pleurobema troschelianum	Alabama Clubshell	S1	G1Q		

Ptychobranchus greenii	Triangular Kidneyshell	S1	G1	E	LE
Strophitus connasaugaensis	Alabama Creekmussel	S1	G3		
Villosa vibex	Southern Rainbow	S2	G4Q		

Strategy - Most of the above species are negatively impacted by excessive sedimentation, fertilizer, pesticides, animal waste, chemical spills, and agricultural & silvicultural runoff. A primary goal for maintaining sensitive aquatic communities is to limit to the greatest extent possible the contributing pollutants in the drainage area supporting their habitats. This segment of the Conasauga River can be protected through various means, including but not limited to the implementation of proper agricultural and silvicultural BMP's. The core stream buffer (and subsequent expansions) may be protected through binding conservation easements with willing landowners or fee simple ownership. Three public highways cross this segment of the Conasauga River. Drainage patterns from each ROW should be evaluated and enhanced with active and passive storm water controls, as needed.

Land Protection Needs - 150 acres (core area of the Amber Darter DCH in Tennessee, including the river and a 50-meter buffer on each side) at an estimated cost of $1,000,000.

Potential Partners - USFWS, TWRA, TDEC, NRCS, TVA, TNC, Conservation Fisheries, Inc.

AUSTIN SPRINGS

Location - (N36.3960, W82.3378) Austin Springs is located in Washington County approximately 5 miles north of Johnson City. It is located on both sides of the Watauga River/Boon Lake at river mile 14.5, just upstream (east) of Austin Springs Road bridge.

Description - Austin Springs is a 190-acre site divided by Watauga River, at the upper end of Watauga Lake. A mix of habitats is attractive to a good number birds. The floodplain of the Watauga River is the primary habitat, but the north side of the river contains vegetated bluffs which are likely more significant in terms of flora and plant communities. Habitats include open lake and seasonal muddy shoreline, short-grass pasture, old fields, thickets, seasonal marsh and woodlands.

Significance - The site serves as an important stopover site for many migrating birds, plus a home for a few locally rare breeding birds. Fall bird banding took place from 1980- 1992 with over 85 species banded. Three listed bird species have been documented from the site including the great egret, common barn owl, and bald eagle. Although not listed, the Virginia rail is considered rare and uncommon in Tennessee and has been observed at the site. The great egret is listed as in-need-of-management because of its past declining numbers and threats to wetland habitats. The Virginia rail utilizes emergent vegetation in marshes for nesting and Austin Springs provides such habitat. In the past, the barn owl used the site for feeding and may have nested there. Other rare birds including peregrine falcon, least bittern, vesper sparrow, and sharp shinned hawk have been observed there too[1].

The bluffs above the Watauga River just east of the current site design contain two rare plant species, Carolina pink (*Silene caroliniana* spp. *pensylvanica*) and branching whitlow-grass (*Draba ramosissima*). It is possible that these two species and perhaps other rare species could be found within the site design, or the conservation planning could result in reconfiguration of this site's boundaries to include these species.

Strategy - Members of the Tennessee Ornithological Society (TOS) should be contacted for additional bird data from the site. The current landownership information needs to be determined.

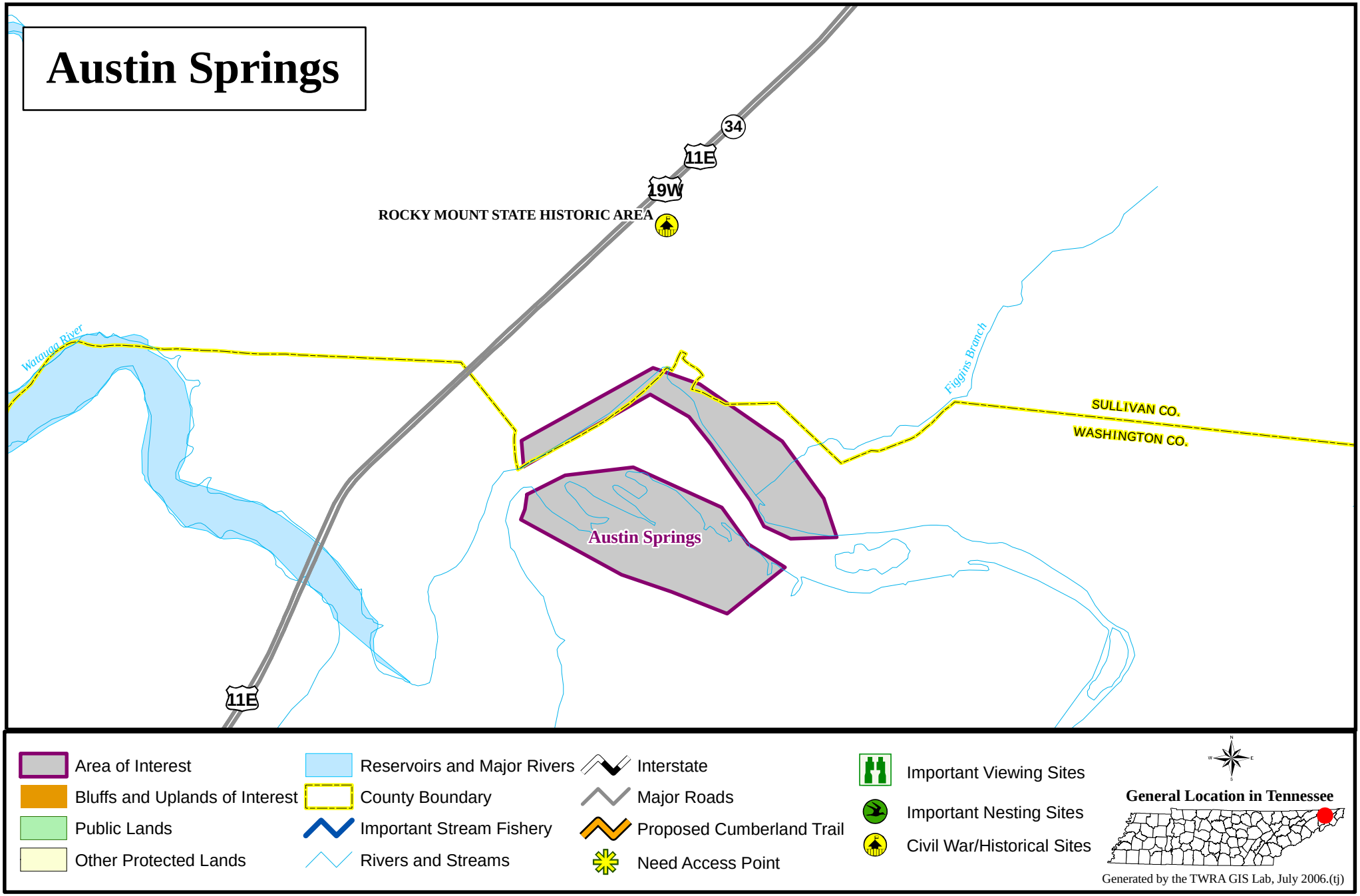
Land Protection Needs – 190 acres at an estimated cost of $600,000.

Potential Partners - TDEC, TWRA, TNC and TOS.

Reference:

Nicholson, C.P. 1997. Atlas of the breeding birds of Tennessee. The University of Tennessee Press. 426 pp.

[1] Although these birds are rare, records for the species have not been mapped by the Tennessee Division of Natural Areas, for they are not breeding or nesting records.


Austin Springs
34
11E
19W
ROCKY MOUNT STATE HISTORIC AREA
Watauga River
Figgins Branch
SULLIVAN CO.
WASHINGTON CO.
Austin Springs
11E
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

BIG RIDGE STATE PARK

Location – (N36.2544, W83.9240) Big Ridge State Park is located between the cities of Andersonville and Maynardville in Union County on the southern shore of TVA's Norris Reservoir approximately 25 miles north of Knoxville.

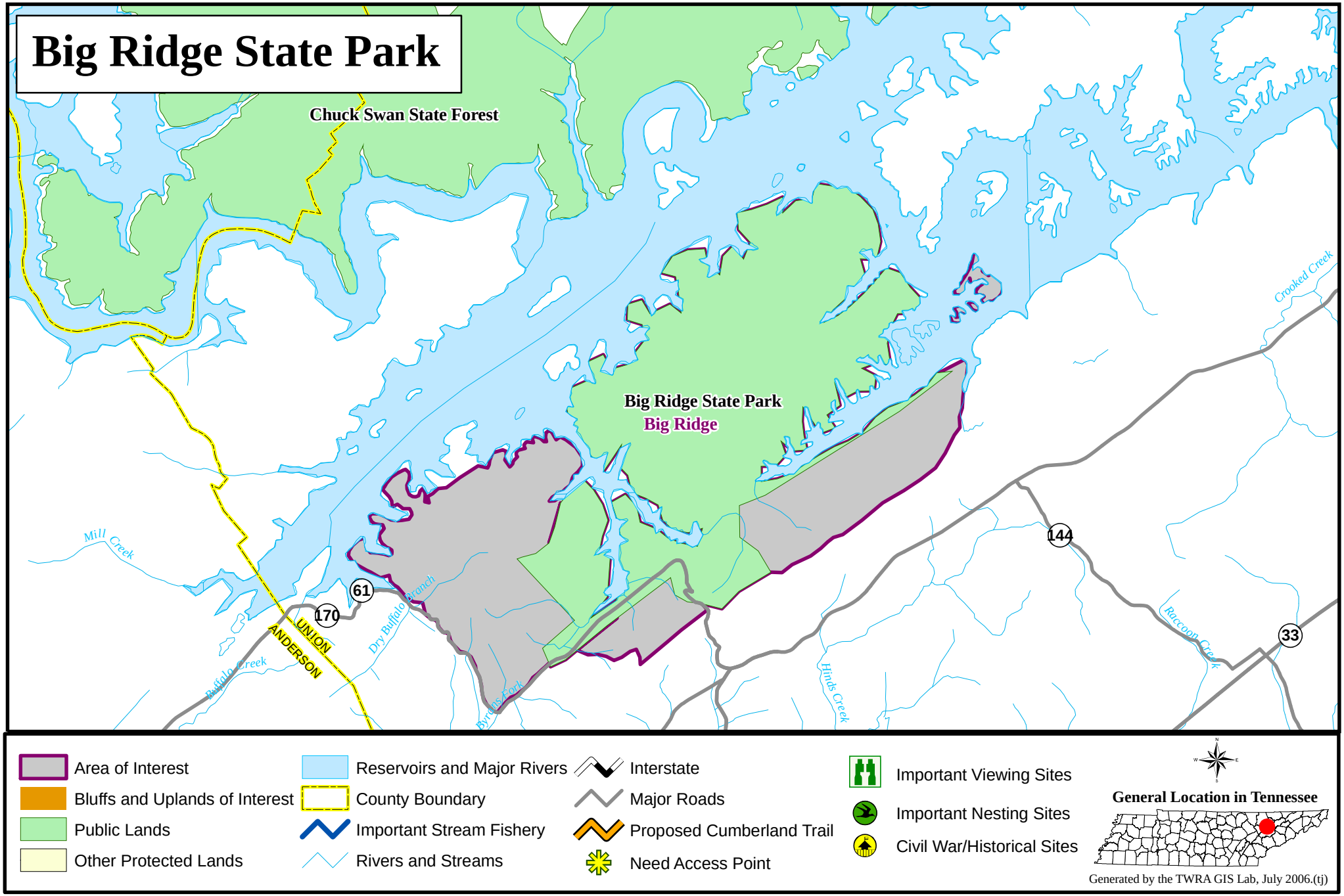
Description - Big Ridge State Park was developed by the Tennessee Valley Authority in cooperation with the NPS and the Civilian Conservation Corps (CCC) as an example of public recreation development along TVA lakeshores. The structures on the park reflect the craftsmanship and stonework of the CCC, and along the trails you may see remnants of the homes and farms that existed here prior to the birth of the TVA. The park contains 3,687 acres.

The park contains 19 rustic cabins and a 50 site modern campground as well as a 120 capacity group camp with picnic areas, hiking trails, lake swimming, bike trails and boat rentals.

Strategy - The strategy for future acquisitions for Big Ridge State Park is to acquire in holdings and properties surrounding the park for watershed protection and properties that contain representative forest cover that further the wildlife, aesthetics, interpretive and recreation missions of Big Ridge State Park.

Land Protection Needs – 891 acres at an estimated cost of $2,200,000.

Potential Partners - TCF, TNC, and TDEC.


Big Ridge State Park
Chuck Swan State Forest
Big Ridge State Park
Big Ridge
Crooked Creek
Mill Creek
Dry Buffalo Branch
Buffalo Creek
Byrds Fork
Hinds Creek
Raccoon Creek
61
170
144
33
UNION
ANDERSON
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

BROOKS ISLAND

Location - (N35.7597, W84.4519) Brooks Island is located in Hancock County between Clinch River Mile 182.5 and 184.5.

Description - Brooks Island is within a meander in the Clinch River containing significant mussel shoals and many rare species.

Significance - Site Importance Outstanding (B1) – Brooks Island is one of three priority mussel shoals (Brooks Island, Kyles Ford, Wallens Bend). This area not only contains numerous rare aquatic species, but they occur in several beds within this stretch of river. Known rare species include:

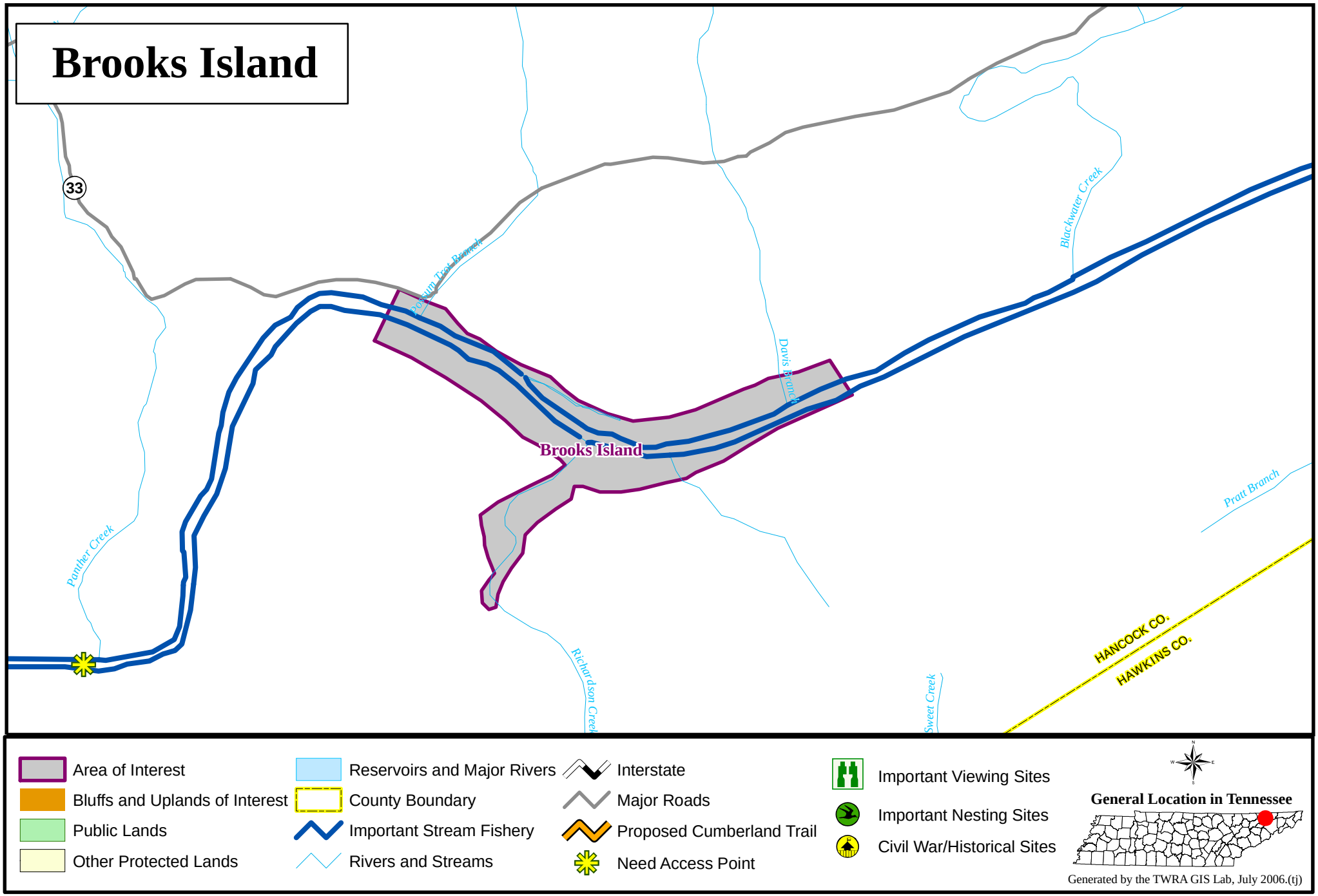
SCIENTIFIC NAME	COMMON NAME	STATE RANK[2]	GLOBAL RANK[3]	STATE STATUS[4]	FED STATUS[5]
Conradilla caelata	Birdwing Pearlymussel	S1	G1	E	LE
Cumberlandia monodonta	Spectaclecase	S2S3	G2G3		C
Cyprogenia irrorata	Eastern Fanshell Pearly Mussel	S1	G1	E	LE
Dromus dromas	Dromedary Pearlymussel	S1	G1	E	LE
Epioblasma brevidens	Cumberlandian Combshell	S1	G1	E	LE
Epioblasma capsaeformis	Oyster Mussel	S1	G1	E	LE
Epioblasma triquetra	Snuffbox	S3	G3		
Erimystax cahni	Slender Chub	S1	G1	T	LT
Etheostoma denoncourti	Golden Darter	S2	G2		
Fusconaia cuneolus	Fine-rayed Pigtoe	S1	G1	E	LE
Fusconaia edgariana	Shiny Pigtoe	S1	G1	E	LE
Io fluvialis	Spiny Riversnail	S2	G2		
Noturus stanauli	Pygmy Madtom	S1	G1	E	LE
Percina aurantiaca	Tangerine Darter	S3	G4	D	
Pleurobema oviforme	Tennessee Clubshell	S2S3	G2G3		
Pleurobema plenum	Rough Pigtoe	S1	G1	E	LE
Ptychobranchus subtentum	Fluted Kidneyshell	S2S3	G2		C
Quadrula cylindrica strigillata	Rough Rabbitsfoot Pearly Mussel	S2	G3T2	E	LE

Strategy - Streambank stabilization around and upstream from the shoals, streambank fencing to keep livestock off the priority shoal areas, other BMPs along Davis Branch above the shoals.

Land Protection Needs - 241 acres at an estimated cost of $500,000 (ideally agreement would be reached with surrounding landowners for this globally important site).

Potential Partners USFWS, TDEC, TWRA, TNC, TVA, NRCS

[2]State ranks relate to rarity within Tennessee: S1=extremely rare and critically imperiled, S2=very rare and imperiled, S3=Rare and uncommon.
[3] Global ranks are similar to State Ranks, but relate to rarity on a global scale.
[4] Legal listing in Tennessee: E=endangered, T=threatened, D=deemed in need of management.
[5] Legal listing at the federal level: LE=endangered, LT=threatened, C=candidate for listing.


Brooks Island
33
Possum Trot Branch
Blackwater Creek
Davis Branch
Brooks Island
Pratt Branch
Panther Creek
Richardson Creek
Sweet Creek
HANCOCK CO.
HAWKINS CO.
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

BULLRUN KNOBS

Location - (N36.0751, W84.0337) Bullrun Knobs is located in Knox County on the northwest facing slopes of Bullrun Creek between Heiskell and Conner Roads. The area is approximately 10 miles northwest of downtown Knoxville.

Description - For several decades, University of Tennessee botanists have taken an interest in the site. Ed Clebsch, retired botanist from UTK wrote "It is a real jewel of a locale." The 190-acre site consists of the forested floodplain of Bull Run Creek, rich coves and dissected uplands. The site contains several stands of eastern hemlock, with rhododendron present as an understory species. The hemlock forests of the eastern United States are under attack from the hemlock wooly adelgid, a small aphid-like insect from Asia.

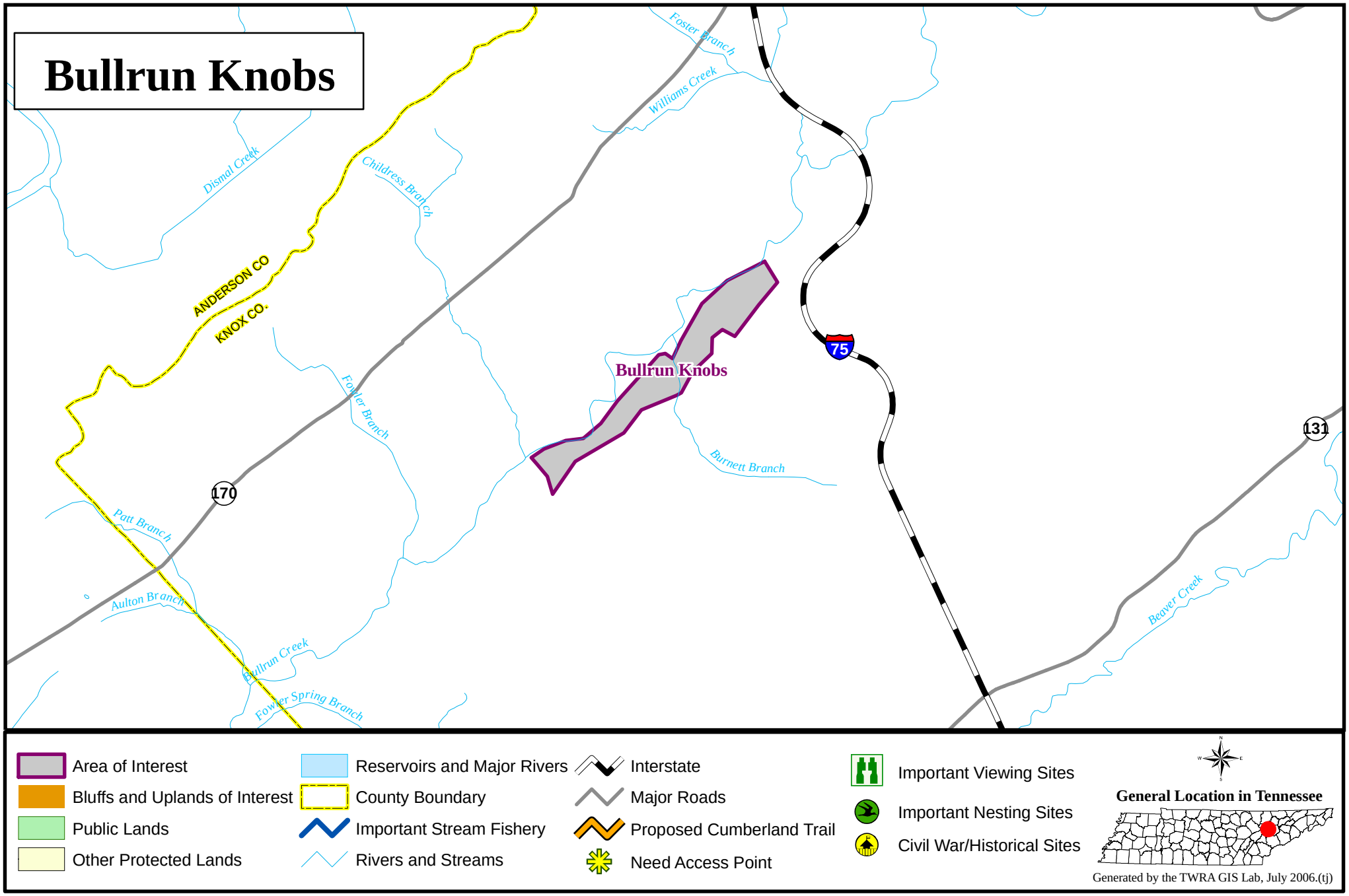
Significance - Comprising part of the diverse flora of Bullrun Knobs are five state-listed plant species including Appalachian bugbane (*Cimicifuga rubifolia*) and yellow water-crowfoot (*Ranunculus flabellaris*). Occurring in only six states, *C. rubifolia* grows in rich woods and is listed as state threatened and considered rare and uncommon both in Tennessee and globally. *R. flabellaris* occurs in a variety of wetland habitats and at Bullrun Knobs it grows at the base of a toe slope near the stream. Although the species is common globally it is threatened and imperiled in Tennessee with only eleven extant occurrences in the state.

Additional rare plants at the site include ginseng (*Panax quinquefolius*), goldenseal (*Hydrastis canadensis*), and white walnut or butternut (*Juglans cinerea*). All three species occur in rich woods. Butternut is tracked because of its decline caused by the butternut canker, while ginseng and goldenseal are tracked because of commercial harvests.

Strategy - Since the site is not far from Knoxville, local governments may be interested in its protection as a nature preserve. Allen Sweetser owns at least a portion of the site and is the source for many of the rare plant records. Any conservation plan must involve him.

Land Protection Needs – 190 acres at an estimated cost of $600,000.

Potential Partners - TDEC, TNC, and Knox County.


Bullrun Knobs
Foster Branch
Williams Creek
Dismal Creek
Childress Branch
ANDERSON CO
KNOX CO.
75
Bullrun Knobs
Fowler Branch
Burnett Branch
131
170
Patt Branch
Aulton Branch
Bullrun Creek
Fowler Spring Branch
Beaver Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

CHANDLER COVE FALLS

Location – (N36.0375, W82.4833) Chandler Cove Falls (Lower Spivey Falls) is located in Unicoi County. This site is approximately 10 miles south from Erwin on Hwy. 36/9W, just south of the highway near Chandler Cove Road.

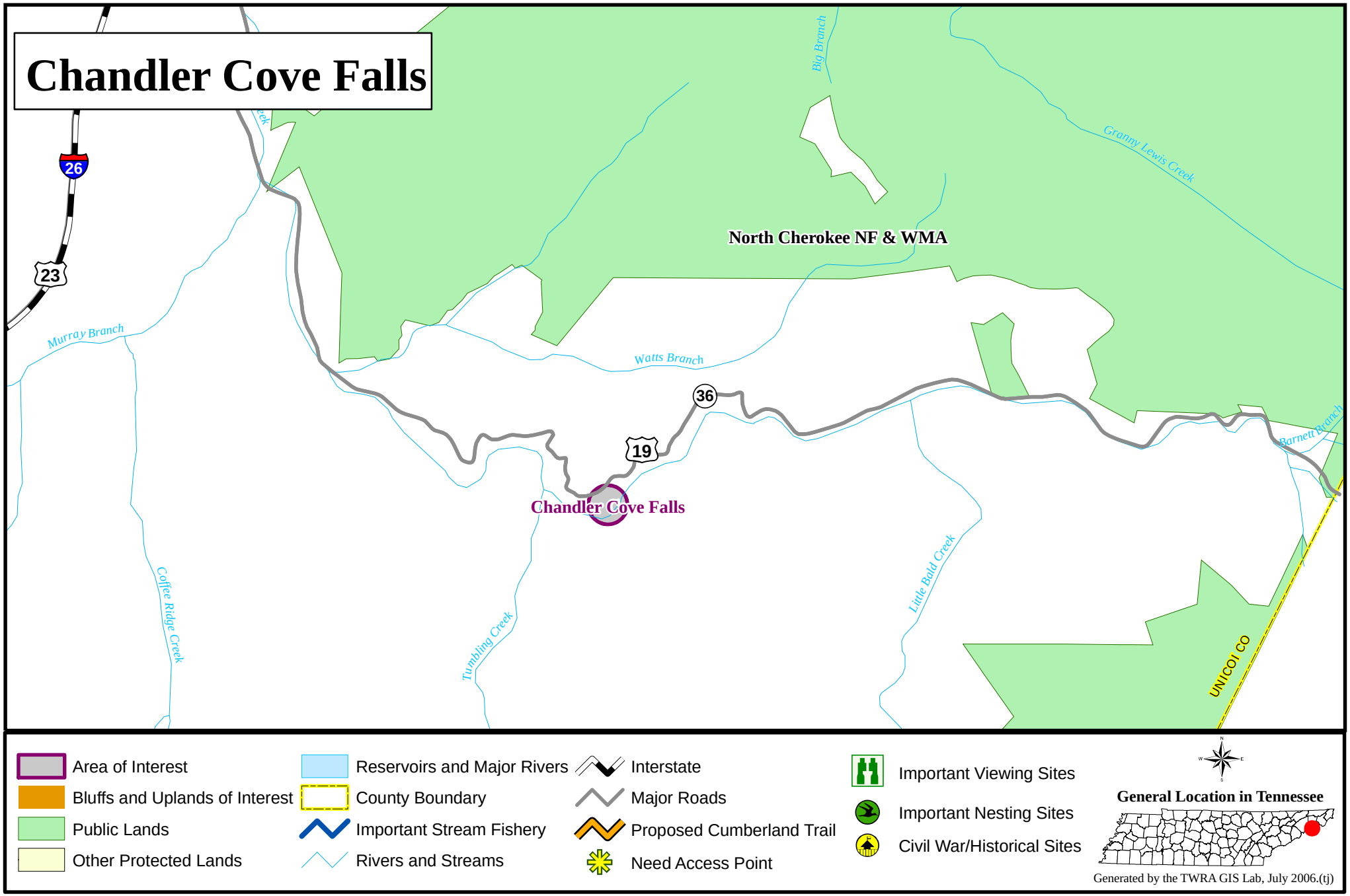
Description – The Chandler Cove Falls is a scenic 40-50 ft. waterfall with a surrounding forest of mixed northern hardwoods.

Significance – High Significance (B3) – The site is significant because of the two populations of state listed plants Roan Mountain sedge (*Carex roanensis*), and a population of the climbing fumitory (*Adlumia fungosa*), and the scenic waterfall.

Strategy - The strategy for acquisition at Chandler Cove Falls is to acquire properties within the site design (site boundary) for preservation of the plant populations and associated habitat and waterfall.

Land Protection Needs – 8 acres at an estimated cost of $85,000.

Potential Partners – TDEC, USFS.


Chandler Cove Falls
26
23
36
19
Big Branch
Granny Lewis Creek
North Cherokee NF & WMA
Murray Branch
Watts Branch
Barnett Branch
Chandler Cove Falls
Coffee Ridge Creek
Tumbling Creek
Little Bald Creek
UNICOI CO
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

CLINCH STATE SCENIC RIVER

Location – (N35.9344, W84.2339) The Clinch River watershed contains parts of Anderson, Knox, Loudon, Morgan, Roane and Union Counties and drains 628 square miles before emptying into Watts Bar Reservoir. Approximately 20 miles of the river, from Melton Hill Dam upstream to the Pellissippi Parkway (State Highway 62) at Solway Bend, was designated as a Class III Partially Developed State Scenic River in 1996.

Description - The Clinch State Scenic River is the only scenic river in Tennessee that lies completely within a TVA impoundment – Melton Hill Reservoir. Although impounded, the Clinch maintains the feeling of a free-flowing river because of its relative narrowness. The widest point, at Gallaher Bend, is only 4,000 feet across. At a pool elevation of 795 feet above mean sea level there are 140 miles of shoreline around the reservoir, which extends 44 miles upstream from the dam at full pool. Much of the river is bordered by the land of the Oak Ridge Reservation owned by the USDOE.

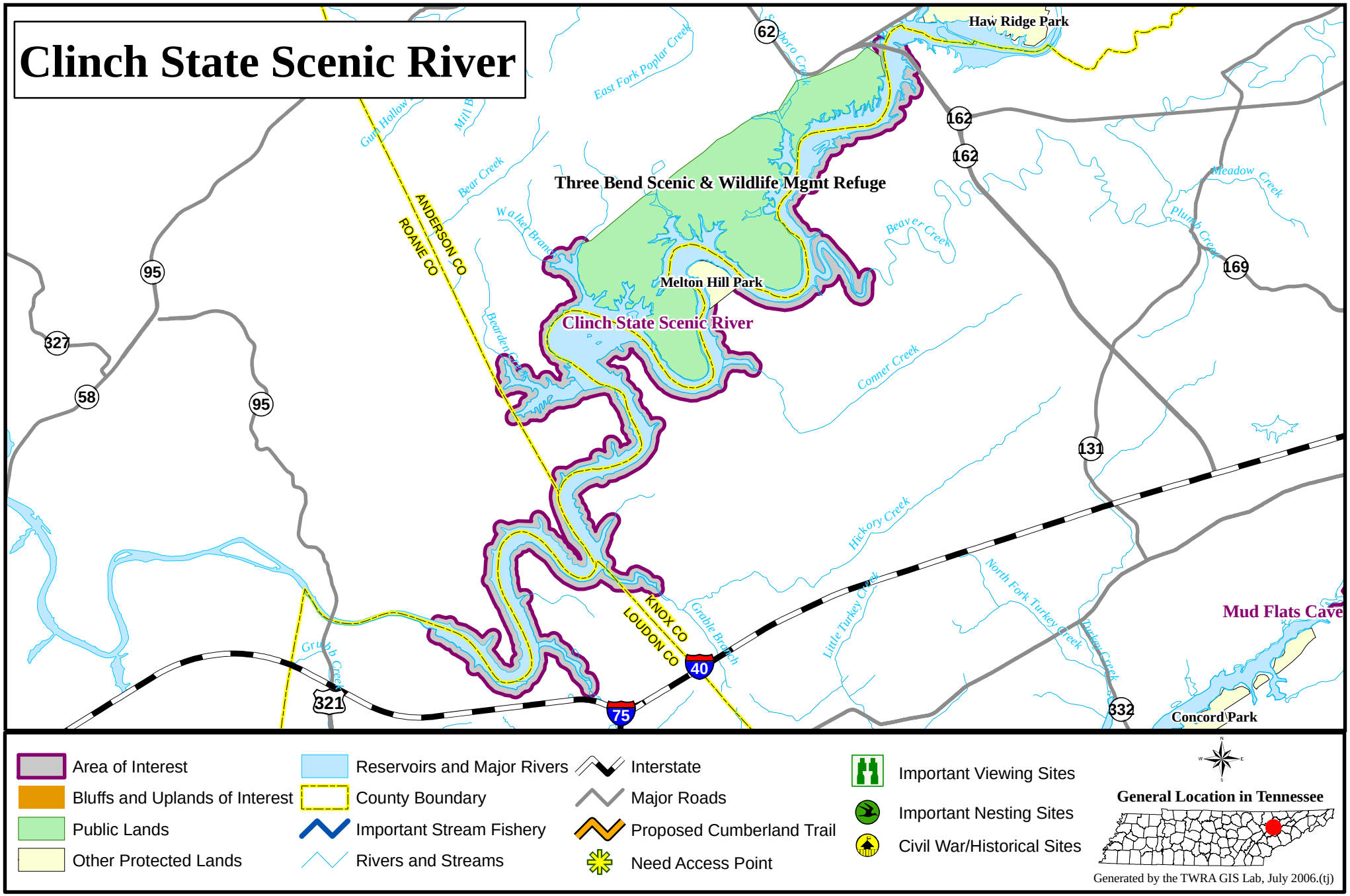
Significance - The Clinch River was designated as a Class III Developed State Scenic River because of its scenic qualities. The river provides boaters, fishermen, and picnickers with ample opportunities for enjoyment. The area is replete with public access, and camping is available at the Melton Hill Dam Reservation. The river flows through the Ridge and Valley Physiographic Province and bisects karst terrain. Boaters on the Clinch will see oak-hickory/eastern red cedar forests along the banks, slopes, and bluffs, which are indicators of limestone geology. These bluffs and forests are dispersed through productive farms in the valleys bordering the river.

Fishing is considered only fair in most years. Fluctuating water temperatures due to cold tailwater releases from Norris Reservoir upstream are thought to possibly affect reproductive success and growth rates of warm-water fish species in the Clinch. Nonetheless, fishermen will find a diverse fishery in the river, with principle game fish species including blue and channel catfish, white bass, yellow bass, striped bass and hybrids, rock bass, largemouth bass, bream, sauger, and trout. TWRA is also attempting to establish a viable muskellunge fishery in the Clinch. Fishermen are advised not to eat catfish from the river due to contamination from PCBs and chlordane.

Strategy - The site conservation plan for the Clinch State Scenic River follows the guidelines of the State Scenic River Act and identifies a corridor of no more than 450 feet from the usual banks of the river on either side. Additionally, connecting contiguous protected areas to state and other publicly owned lands along the entire river corridor are a major approach toward protecting the river and making it a scenic greenway. Methods for conserving these areas are by fee title purchases, conservation easements, and landowner assistance programs. Public and private partnerships are key to protecting and maintaining this relatively unspoiled river.

Land Protection Needs – 500 acres at an estimated cost of $2,000,000

Potential Partners - TDEC, TWRA, TNC, USFWS, USFS, USACE, County Governments, Private Corporations, Foundations, and Individual Donors.


Clinch State Scenic River
Haw Ridge Park
Three Bend Scenic & Wildlife Mgmt Refuge
Melton Hill Park
Clinch State Scenic River
Mud Flats Cave
Concord Park
ANDERSON CO
ROANE CO
KNOX CO
LOUDON CO
East Fork Poplar Creek
Bear Creek
Walker Branch
Beaver Creek
Meadow Creek
Plumb Creek
Bearden Creek
Conner Creek
Hickory Creek
Little Turkey Creek
North Fork Turkey Creek
Duden Creek
Grable Branch
Grubb Creek
62
162
162
169
95
95
327
58
131
40
75
321
332
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

CONASAUGA STATE SCENIC RIVER

Location – (N35.0036, W84.6863) The Conasauga River watershed includes parts of Bradley and Polk Counties and drains 124 square miles before crossing into Georgia. Approximately 8.3 miles of the river in Polk County upstream of Hwy 411 was designated as a Class I State Scenic River in 1969.

Description -The Conasauga River originates in the north Georgia mountains of the Chattahoochee National Forest and flows northwest into Tennessee and the Cherokee National Forest. Because it does not drain to the Mississippi, as do the other streams in Tennessee, it provides habitat for aquatic species not commonly found in Tennessee. It is one of the most pristine, beautiful, and biologically rich rivers in the Southeast. Its water quality is excellent and it has no dams to block fish movement or disturb the natural river flow.

Significance - According to a TNC/NatureServe publication entitled, Rivers of Life: Critical Watersheds for Protecting Freshwater Biodiversity, the Conasauga River has more imperiled aquatic species than all but seven other rivers in the US, with 21 at-risk fish and mussel species including 10 listed by the USFWS. The river is included in the State Scenic River System because of its natural river qualities, and is the region's only Underwater Watchable Wildlife Viewing Area, as designated by the TWRA.

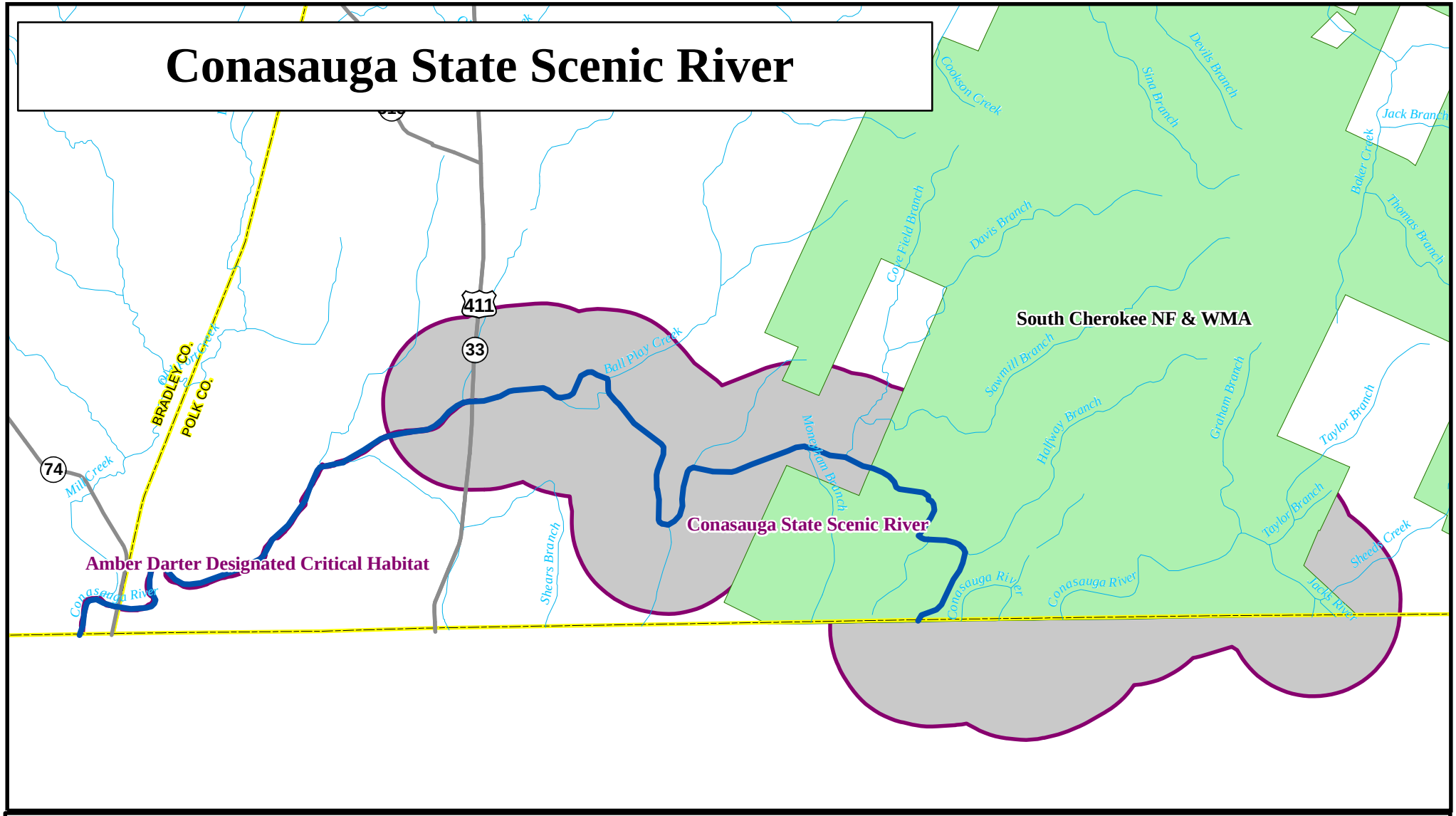
The Conasauga supports over 90 species of fish and 24 species of mussels, with more than 20 of these being rare. The Conasauga logperch (*Percina antesella*), for example, is found within a 15-mile stretch of the river and nowhere else in the world. The upper section of the river is designated a Management Category 5 area by the Cherokee National Forest. This protects areas with high visual sensitivity and a high degree of public interest and generally prohibits timber harvesting. Consequently, the upper section of the river flows through heavily forested hills. The lower sections of the river are surrounded by well managed farmlands that have benefited both the river and the surrounding community. The clean water is beneficial for canoeing, fishing, agriculture and industry.

Strategy - The site conservation plan for the Conasauga State Scenic River follows the guidelines of the State Scenic River Act and identifies a corridor of no more than 3,000 feet from the center on each side of the river. Additionally, connecting contiguous protected areas to state and other publicly owned lands along the entire river corridor are a major approach toward protecting the Conasauga River and making it a scenic greenway. Methods for conserving these areas are by fee title purchases, conservation easements, and landowner assistance programs. Public and private partnerships are key to protecting and maintaining this relatively unspoiled river. Acquisition of key tracts for public access and use will be strategically targeted.

Land Protection Needs – 500 acres at an estimated cost of $550,000

Potential Partners - TDEC, TWRA, TNC, USFWS, USFS, USACE, County Governments, Private Corporations, Foundations, Individual Donors.

Conasauga State Scenic River



Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites

General Location in Tennessee

Generated by the TWRA GIS Lab, July 2006.(tj)

DAVY CROCKETT BIRTHPLACE STATE PARK

Location – (N36.2053, W82.6562) Davy Crockett Birthplace State Park is located at the confluence of the Nolichucky River and Limestone Creek in Greene County.

Significance - This 105 acre park commemorates the birthplace of Davy Crockett.

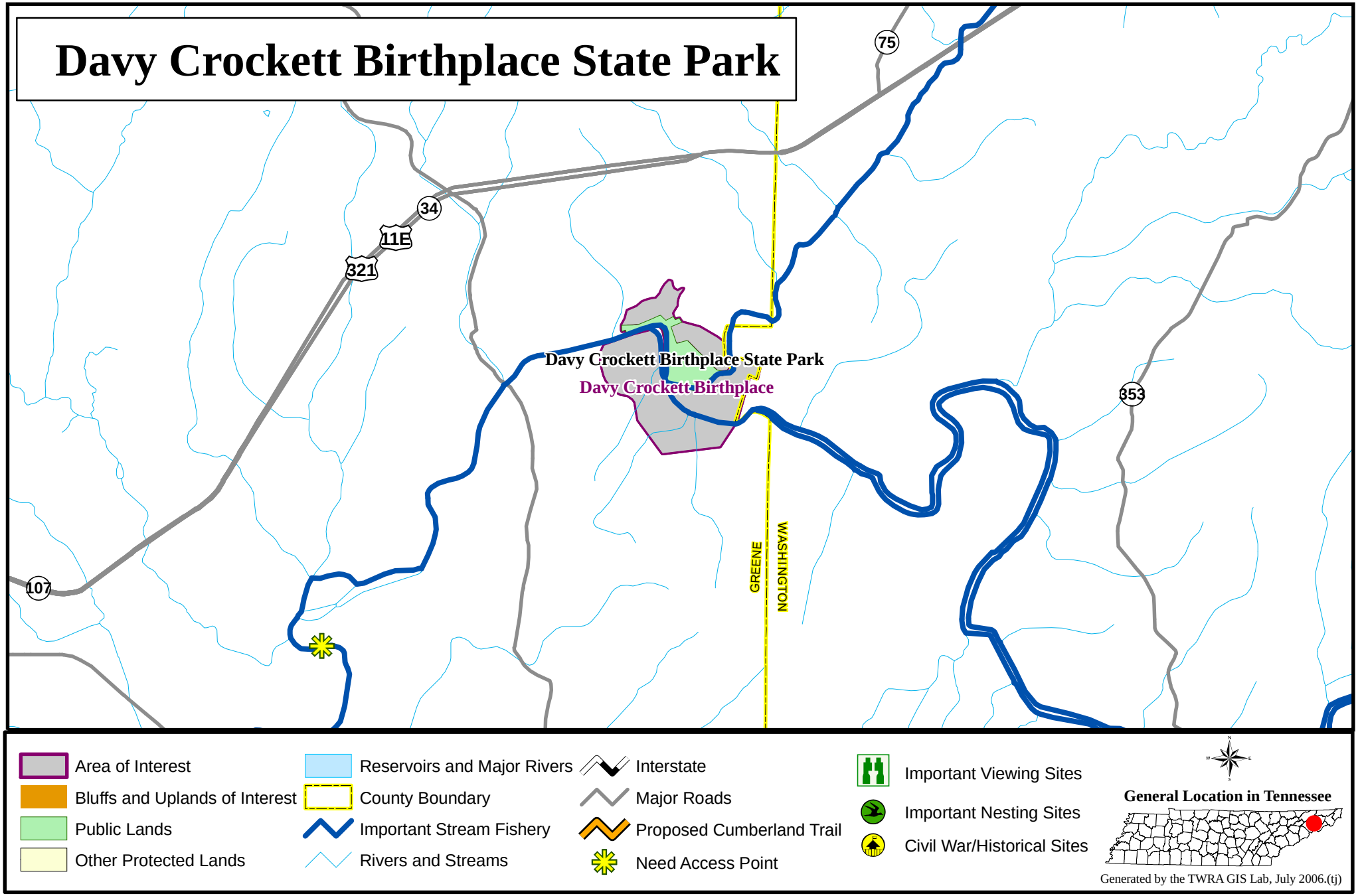
The park includes a replica of the log cabin in which he was born and a museum dedicated to Crockett. Though small, the park provides a wonderful diversity of natural settings ranging from forested limestone bluffs to meadows and tree lined streams: all providing exceptional bird and other wildlife viewing opportunites.

The park includes an 88 improved site modern campground with water, electric and sewer hook-ups. The campground also includes 18 primitive tent campsites. There is a swimming pool open to the public.

Strategy - The strategy for future acquisitions for Davy Crockett Birthplace State Park is to acquire in holdings and properties surrounding the park for watershed protection and properties that contain representative forest cover that further the wildlife, aesthetics, interpretive and recreation missions of Davy Crockett Birthplace State Park.

Land Protection Needs – 210 acres at an estimated cost of 825,000.

Potential Partners TCF, TNC, and TDEC.


Davy Crockett Birthplace State Park
75
34
11E
321
Davy Crockett Birthplace State Park
Davy Crockett Birthplace
353
GREENE
WASHINGTON
107
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

DOE MOUNTAIN

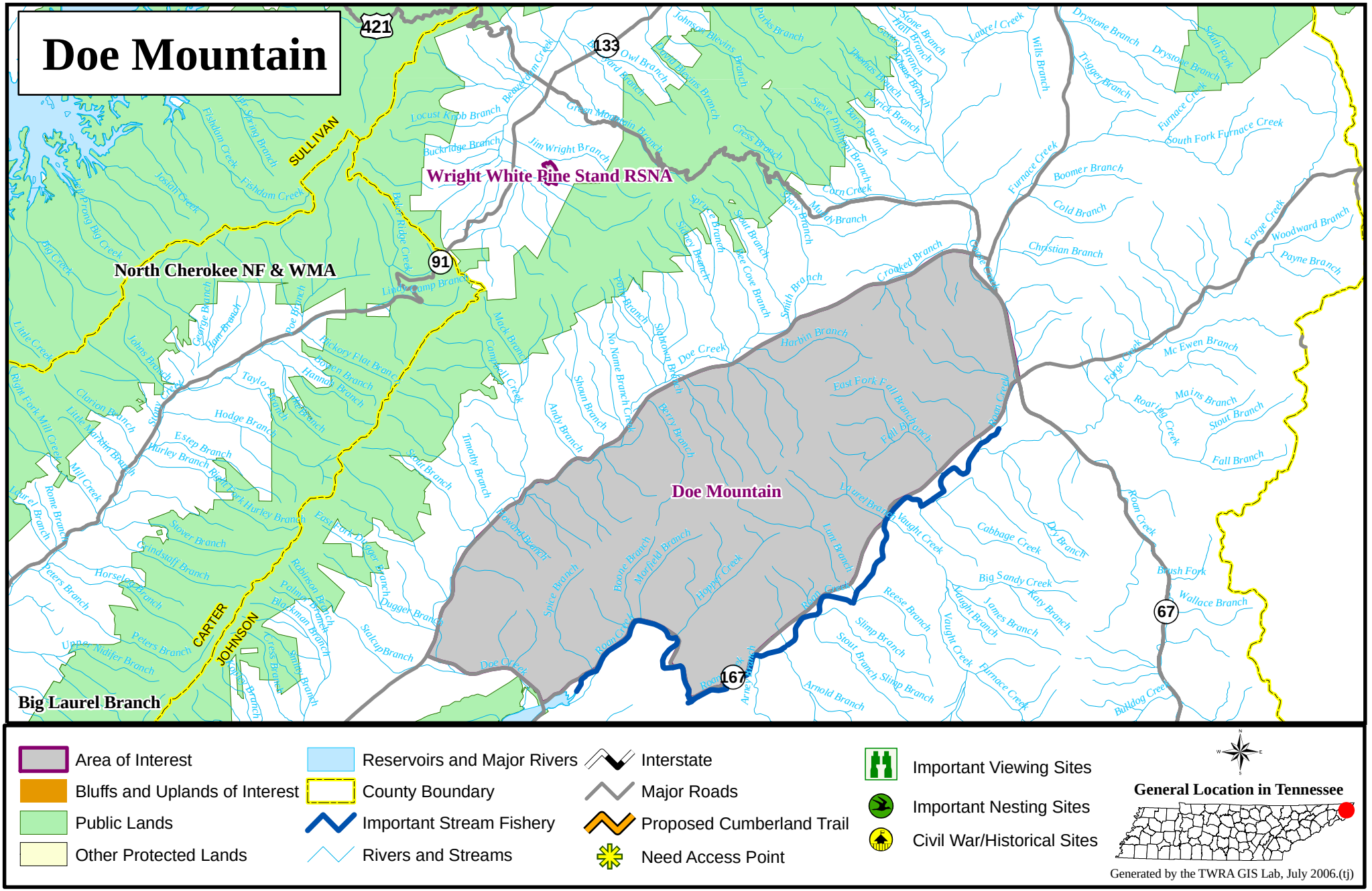
Location – (N36.4230, W81.8768) The Doe Mountain project area is located in Johnson County in the extreme northeast corner of Tennessee. The property starts as the southern edge of Mountain City, Tennessee and runs southwest to about one mile north of Butler, Tennessee.

Description - The area is mountainous and consists of one main mountain ridge with associated drainages on each side. The slopes are steep and generally covered by oak/hickory hardwood forests. Elevations range from near 2,150 feet near Butler to slightly above 3,800 feet at the highest point.

Significance - This is a significant area of the Appalachian Mountain chain. Due to its location in extreme northeast Tennessee, it contains some wildlife species found in only a few places in the state such as the least weasel. The USFS owns much of the surrounding mountains, but Doe Mountain is a significant mountain area subject to development. Other important wildlife species found on the area include the saw-whet owl, cerulean warbler, alder flycatcher, Yonahlossee salamander, Weller's salamander, pigmy salamander, and woodland jumping mouse.

Land Protection Needs - 8,300 acres at an estimated cost of $8,545,000.

Potential Partners – TWRA and NWTF.


Doe Mountain
421
133
91
67
167
SULLIVAN
CARTER
JOHNSON
Wright White Pine Stand RSNA
North Cherokee NF & WMA
Doe Mountain
Big Laurel Branch
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
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DOE RIVER GORGE SITE

Location – (N36.5631, W83.0437) The Doe River Gorge Site is located in Carter County just south of Hampton. The steep river gorge is located upstream of the Doe River bridge crossing on Hwy 19E and flows between Fork Mountain and Cedar Mountain.

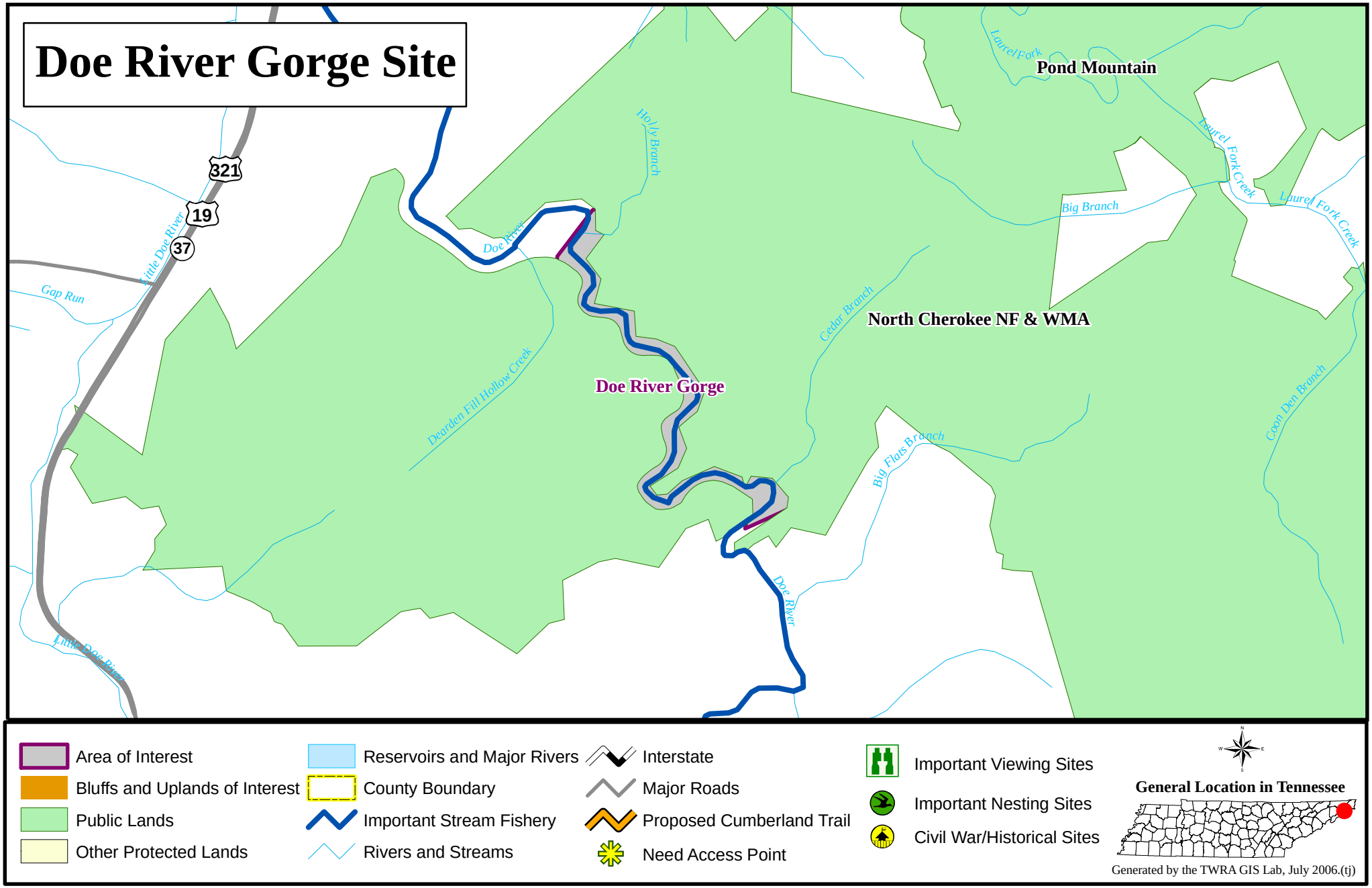
Description – This "V"shaped rugged gorge cuts through Cambrian age rock to expose steep cliffs with elevations ranging from 3600 to 2000 feet. Endangered plant and animal species are present as well as the abandoned railroad bed of the Tweetsie Railroad that operated in the late 1800's and early 1900's. The famous railroad provided scenic rides as well as freight loads through the mountains from Johnson City to Boone, North Carolina and ceased operation through this section of the gorge in 1930's. There are several railroad tunnels cut through the mountains within the gorge. The forested slopes and rocky cliffs on both sides of the gorge are owned by the Cherokee National Forest. The gorge area downstream of the site up to the Doe River bridge on Hwy 19E is owned by the Doe River Christian Camp.

Significance – Site Importance High (B2) – The Doe River Gorge is geologically and historically significant as well as harboring populations of one rare animal, the common raven (*Corvus corax*), and ten rare plants: Carolina hemlock (*Tsuga caroliniana*), roundleaf sundew (*Drosera rotundifolia*), silverling (*Paronychia argrocoma*), climbing fumitory (*Adlumia fungosa*), rock skullcap (*Scutellaria saxatilis*), tufted club-rush (*Trichophorum cespitosum*), mountain snakeroot (*Prenanthes roanensis*), Fraser's sedge (*Cymophyllus fraserianus*), Beadle's mountain mint (*Pycnanthemum beadlei*) and Canada burnet (*Sanguisorba canadensis*). Three of the plants are listed as state endangered and critically imperiled in the state (S1), six are listed as state threatened and very rare in the state (S2 and S3), and one species, the Fraser's sedge, is listed as special concern. Most of the plants can be viewed from the railroad bed, however, the rock and seepage dependent species such and the silverling, tufted club-rush and the sundew are restricted to the steep slopes. Recreation opportunities exist in the gorge including white-water rafting, canoeing/kayaking and hiking.

Strategy - The strategy for acquisition at Doe River Gorge is to acquire the gorge area surrounded by the Cherokee National Forest land within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare plant and animal species will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs – 244 acres at an estimated cost of $335,000 which includes approximately 3 miles of river and slopes

Potential Partners – TDEC, TWRA, and USFS.


Doe River Gorge Site
321
19
37
Little Doe River
Gap Run
Doe River
Holly Branch
Laurel Fork
Pond Mountain
Laurel Fork Creek
Big Branch
Laurel Fork Creek
Cedar Branch
North Cherokee NF & WMA
Dearden Fill Hollow Creek
Doe River Gorge
Big Flats Branch
Coon Den Branch
Doe River
Little Doe River
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

FORT LOUDOUN STATE HISTORIC PARK

Location – (N35.5884, W84.2143) Fort Loudoun State Historic Park is located in Monroe County, near the city of Vonore.

Description – This is a 1200-acre historic area and day use park located on the shores of Tellico Lake. It is dedicated to preserving the history of Fort Loudoun and the role it played in the French and Indian War. The Fort Loudoun Visitors Center houses an exhibit area with artifacts from the French an Indian War. There is an auditorium that features "The Fort Loudoun Story", --an award winning 15-minute video on the history of the site.

Significance - During the French and Indian War, the British colony of South Carolina felt threatened by French activities in the Mississippi River valley. To counter this threat the colony sent the Independent Company of South Carolina to construct and garrison what became Fort Loudoun. This move helped to ally the powerful Overhill Cherokee Nation in the fight against the French and guaranteed that trade would continue between the Cherokees and South Carolina.

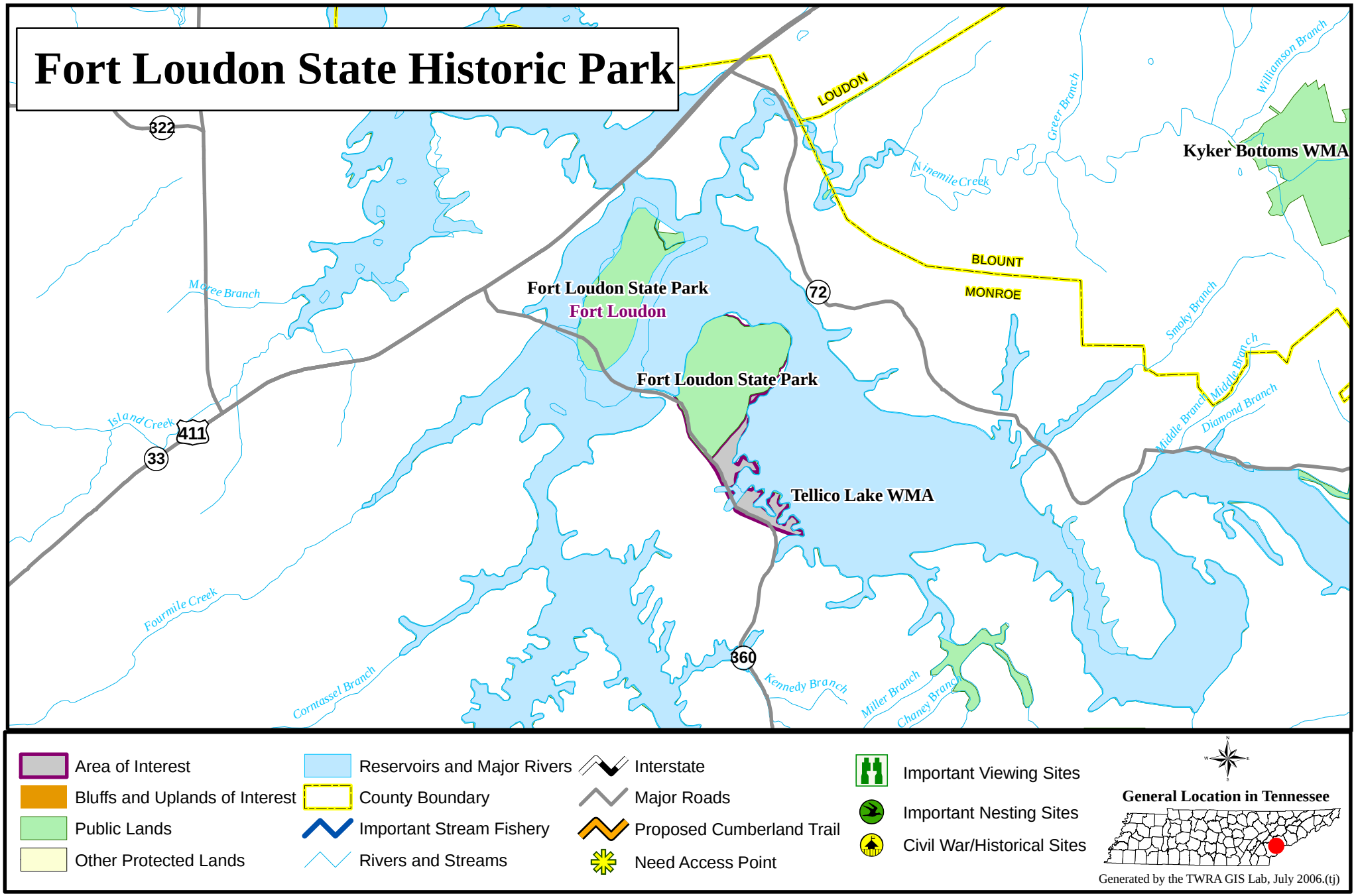
In the course of the fort's four-year existence (1756-1760), relations between the British and the Cherokee nation broke down. In August 1760, the Cherokee captured Fort Loudoun and its garrison.

The park staff is always in the process of adding new components to the reconstructed fort on historical documents and is the site for historical reenactments and encampments.

Strategy - The strategy for future acquisitions for Fort Loudoun State Historic Area is to acquire in holdings and properties surrounding the park for watershed protection and properties that contain representative forest cover that further the wildlife, aesthetics, interpretive and recreation missions of Fort Loudoun State Historic Area.

Land Protection Needs – 63 acres at an estimated cost of $704,000.

Potential Partners – TCF, TNC, and TDEC.


Fort Loudon State Historic Park
322
LOUDON
Greer Branch
Williamson Branch
Kyker Bottoms WMA
Ninemile Creek
BLOUNT
MONROE
Fort Loudon State Park
Fort Loudon
72
Smoky Branch
Middle Branch
Diamond Branch
Fort Loudon State Park
Island Creek
411
33
Tellico Lake WMA
Fourmile Creek
360
Kennedy Branch
Miller Branch
Chaney Branch
Cornfassel Branch
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

FRENCH BROAD STATE SCENIC RIVER

Location – (N35.9393, W83.0458) The Upper French Broad River watershed contains parts of Cocke and Greene Counties and drains 215 square miles before joining the Pigeon River at Douglas Reservoir. Approximately 33 river miles of this river in Cocke County from the state line with North Carolina to the confluence with Douglas Lake were designated as a State Scenic River in 1968.

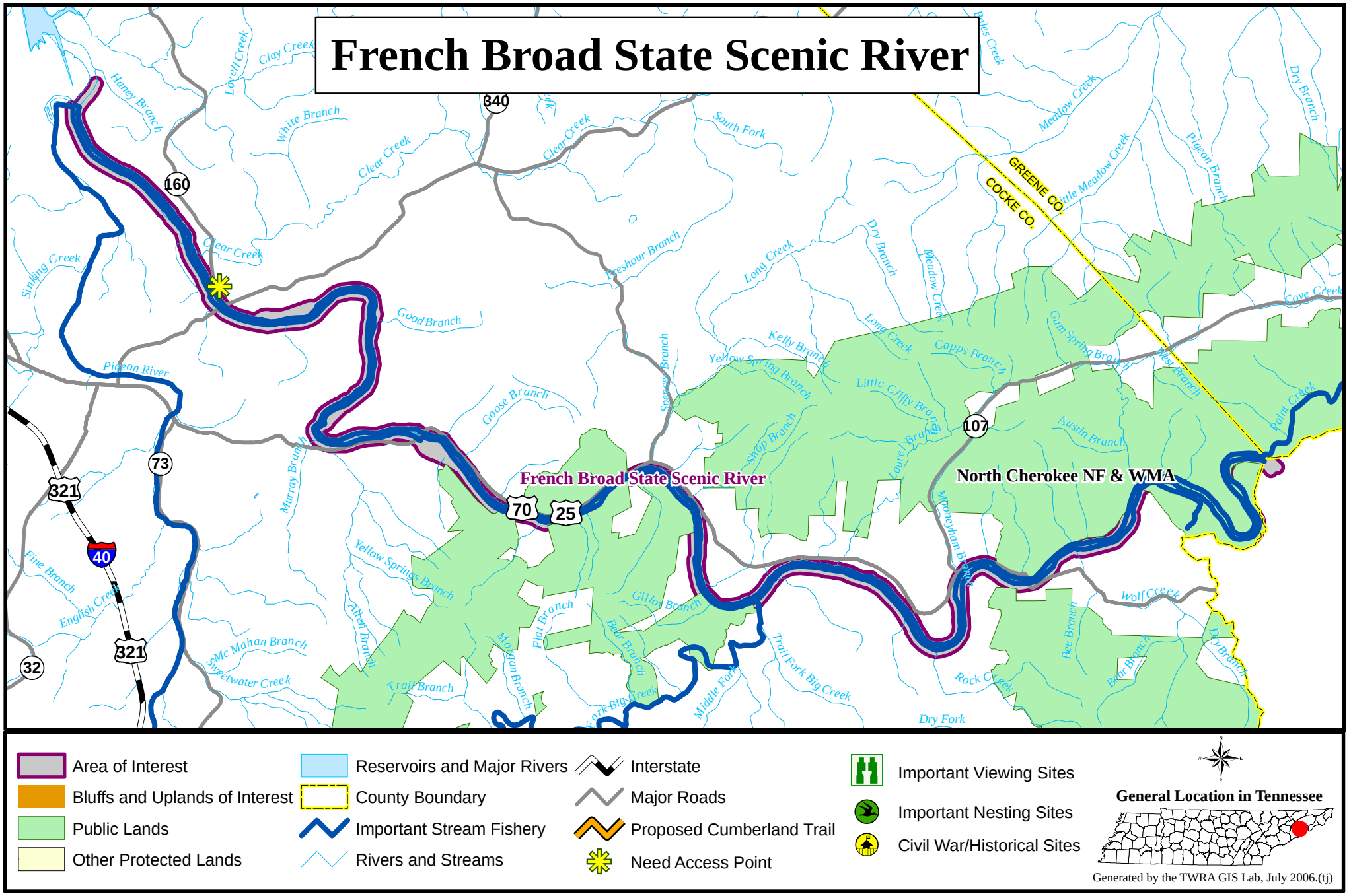
Description - The Cherokee gave more than one name to the French Broad, calling it "Long Man," who was fed by mighty tributaries like the Pigeon and the Nolichuchy - his "Chattering Children." And they called it "Agiqua." And in the steep gorges above where it flows into Tennessee, they called it "Tahkeyostee," meaning "Where they race." When the first long hunters came from the east in the 1670's, climbed the last blue ridge of the English territory, and gazed at the new river they had found, they called it the French Broad, for it flowed toward the lands and rivers owned by France. Ginseng has also played an important role in area's local history. In the 1700's and 1800's, it is said that "bales" of this herb were shipped to China and Korea.

Significance - Recreation opportunities abound on the French Broad and in the surrounding land. The river flows through or near the Cherokee National Forest and the Great Smoky Mountains National Park. Roan Mountain State Park is not far away to the north in Carter County. The flora within the French Broad Scenic River area reflects the great variety and distribution of plant life. The flood plain includes tree species such as sycamore, beech, birch, black willow, sugar maple and hornbeam. The transition from flood plain to uplands includes white oak and oak-hickory forest. The waters of the French Broad support warm water fishes such as largemouth bass, bluegill, crappie, suckers and carp. Cool water species include small-mouth bass, rock bass, and sauger. Some tributaries support trout fisheries. Wildlife is also abundant in the area.

Strategy - The site conservation plan for the French Broad State Scenic River follows the guidelines of the State Scenic River Act and identifies a corridor of no more than 450 feet from the usual banks of the river on each side. Additionally, connecting contiguous protected areas to state and other publicly owned lands along the entire river corridor are a major approach toward protecting the French Broad River and making it a scenic greenway. Methods for conserving these areas are by fee title purchases, conservation easements, and landowner assistance programs. Public and private partnerships are key to protecting and maintaining this relatively unspoiled river. Acquisition of key tracts for public access and use will be strategically targeted.

Land Protection Needs – 500 acres at an estimated cost of $550,000

Potential Partners - TDEC, TWRA, TNC, USFWS, USFS, USACE, County Governments, Private Corporations, Foundations, Individual Donors.


French Broad State Scenic River
French Broad State Scenic River
North Cherokee NF & WMA
GREENE CO.
COCKE CO.
340
160
73
321
40
321
32
70
25
107
Haney Branch
Lowell Creek
Clay Creek
White Branch
Clear Creek
Clear Creek
Sinking Creek
Clear Creek
Good Branch
Pigeon River
Goose Branch
Murray Branch
Yellow Springs Branch
Fine Branch
English Creek
Mc Mahan Branch
Sweetwater Creek
Allen Branch
Trail Branch
Flat Branch
Morgan Branch
Gillon Branch
Bear Branch
Middle Fork
Trail Fork Big Creek
Dry Fork
Rock Creek
Bee Branch
Bear Branch
Dry Branch
Wolf Creek
Freshour Branch
South Fork
Long Creek
Dry Branch
Meadow Creek
Spencer Branch
Kelly Branch
Yellow Spring Branch
Long Creek
Capps Branch
Little Cliffy Branch
Laurel Branch
Shop Branch
Gum Spring Branch
West Branch
Austin Branch
Meadow Creek
Little Meadow Creek
Pigeon Branch
Dry Branch
Cove Creek
Point Creek
Bales Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

GILLILAND GLADE AND OAK FOREST

Location - (N35.1464, W84.8389) Gilliland Glade and Oak Forest is located in Bradley County south of Hwy 64 and north of Bates Pike, approximately 0.6 miles east of cloverleaf interchange, just east of Cleveland.

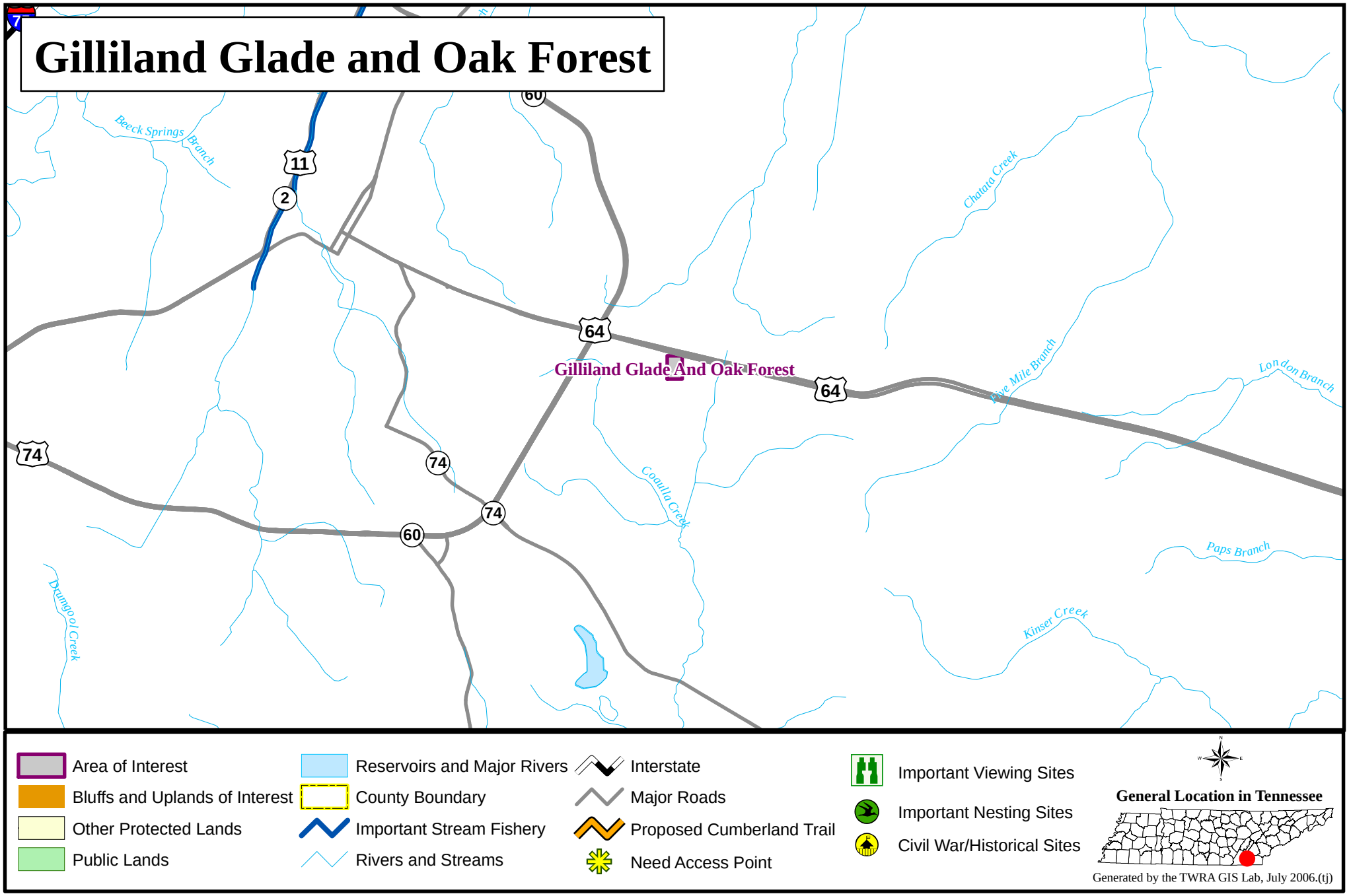
Description - This 9.25 acre site is relatively flat at an elevation of 900 feet in the Ridge and Valley Physiographic Province just south of the Tennessee Valley Divide. It has exposed areas of limestone and the area has been mapped as Conasauga shale. The limestone at the site weathers to a shallow soil and is believed to be almost pure calcium carbonate. This site includes an oak forest and cedar glades which do not usually occur in the Ridge and Valley Province. The mesic forest is dominated by white oak but transitions to a forest near the creek which is dominated by willow oak. In the transition area several species occur including southern red oak, short leaf pine, Carolina hickory, loblolly pine, white ash, American elm, sugar maple, mockernut hickory, eastern red cedar, and red maple. The glades, because of the composition of the surrounding forest, would more accurately be called cedar-pine glades.

Significance - This site is of the Ridge and Valley Calcareous Valley Bottom Glade and Woodland ecological system type. Very few examples of this type of community exist in Tennessee. No tracked rare plants are known to occur here but there are several uncommon plants which are more typical of the Central Basin cedar glades. Plants present that are more typical of cedar glades in Middle Tennessee include *Sedum pulchellum, Isanthus brachiatus, Nothoscordum bivalve, Hypoxis hirsuta* and *Asclepias verticillata*. The most uncommon plant that occurs at this site is *Leavenworthia torulosa*. This plant is no longer tracked by the Natural Heritage Program but is known only from Meigs and Bradley Counties in the Ridge and Valley Province. The presence of uncommon species such as *L. torulosa,* in association with cedars and pines indicates the rarity of this plant community type.

Strategy - The area surrounding the site is developed to an extent such that few open spaces remain. If the land is not acquired this site would be a prime tract for development should the current owner decide to sell to a commercial interest. Several Universities and Colleges are located nearby and it would be advantageous to have this site available for botanical education. Protection of the plant community would be achieved with additional benefits to the local community.

Land Protection Needs - 9.21 acres for forest and glades at a cost of $50,000.

Potential Partners - Mr. John Gilliland, TDEC, and TNC


Gilliland Glade and Oak Forest
Beeck Springs Branch
Chatata Creek
Five Mile Branch
London Branch
Coaulla Creek
Paps Branch
Kinser Creek
Drumgool Creek
Gilliland Glade And Oak Forest
7
11
2
60
64
74
Area of Interest
Bluffs and Uplands of Interest
Other Protected Lands
Public Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

HAMPTON CREEK COVE SNA

Location – (N36.0830, W82.0240) Hampton Creek Cove is a 693-acre natural area located in Carter County outside the town of Roan Mountain near Roan Mountain State Park.

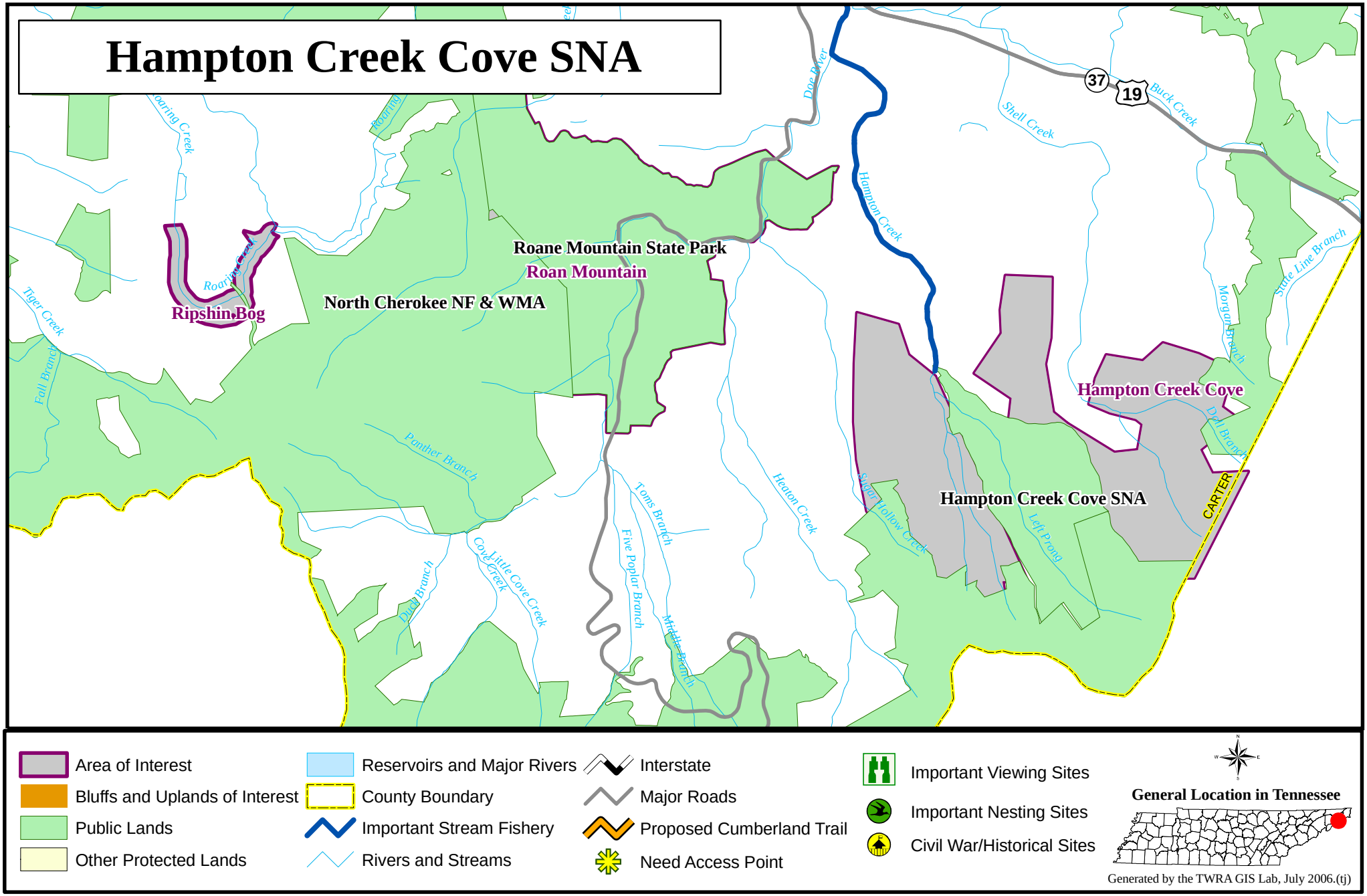
Description - Hampton Creek Cove is in the Southern Appalachian Mountains at an elevation of 3,000 - 4,700 feet. The upper boundary is contiguous to the Cherokee National Forest below where the Appalachian Trail (AT) crosses Little Hump and Hump Mountain. The upper reaches of the Left Prong of Hampton Creek originate on these slopes. The creek is a prominent feature bisecting the length of the natural area draining young and mature forests, seeps, and farmland in the cove and is considered one of the most productive trout streams in Tennessee, even though it is presently undergoing brook trout restoration directed by Trout Unlimited and TWRA. The old field/forest succession at the lower mountain elevation provides excellent nesting habitat for the golden- winged warbler, a neo-tropical migrant species in decline. The area is so important to the health of the golden-winged warbler that it was designated an "Important Bird Area" by the National Audubon Society. In partnership with the National Park Service and the Overmountain Victory Trail Association, work is underway to connect the Birchfield Trail to Yellow Mountain Gap at the AT, to retrace and protect the historic route of the Overmountain Men in their march to the Revolutionary War's 1780 Battle of King's Mountain.

Significance - The natural area is host to a plethora of rare native species including: small white leek (*Allium tricoccum*), Roan Mountain sedge (*Carex roanensis*), bent avens (*Geum geniculatum*), John's cabbage (*Hydrophyllum virginianum*), butternut (*Juglans cinerea*), American ginseng (*Panax quinquefolius*), small purple-fringe orchid (*Platanthera psycodes*), mountain rattlesnake root (*Prenanthes roanensis*), choke cherry (*Prunus virginiana*), rosy twisted-stalk (*Streptopus lanceolatus*), American speedwell (*Veronica americana*), pygmy salamander (*Desmognathus wrightii*), alder flycatcher (*Empidonax alnorum*), and short tailed shrew (*Sorex dispar*).

Strategy - The view from the slopes of Hampton Creek Cove is one of the most bucolic in Appalachia and is one of the most valuable assets of the natural area. The view from the natural area is highly threatened by timbering and residential development, including development of second homes and resorts. Additional populations of rare plants and animals, including those listed above, are probably to be found in adjacent properties that are and may be for sale. Protecting the mountains and coves adjacent to the natural area will protect these rare species and the stellar scenic qualities of the area.

Land Protection Needs - 1,581 acres at an estimated cost of $4,100,000.

Potential Partners - TDEC, Southern Appalachian Highlands Conservancy, TWRA, and USFS.


Hampton Creek Cove SNA
Roaring Creek
Roaring Creek
Doe River
Shell Creek
37
19
Buck Creek
Hampton Creek
Roane Mountain State Park
Roan Mountain
Roaring Creek
Ripshin Bog
North Cherokee NF & WMA
Tiger Creek
Fall Branch
Panther Branch
Morgan Branch
State Line Branch
Hampton Creek Cove
Dell Branch
Hampton Creek Cove SNA
CARTER
Toms Branch
Heaton Creek
Swan Hollow Creek
Left Prong
Five Poplar Branch
Middle Branch
Cove Creek
Little Cove Creek
Dale Branch
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

HIWASSEE AND OCOEE RIVERS RECREATION AREAS

Location - This area is located along the banks of the Hiwassee State Scenic River and the Ocoee River in Polk County, near the cities of Benton and Copper Hill.

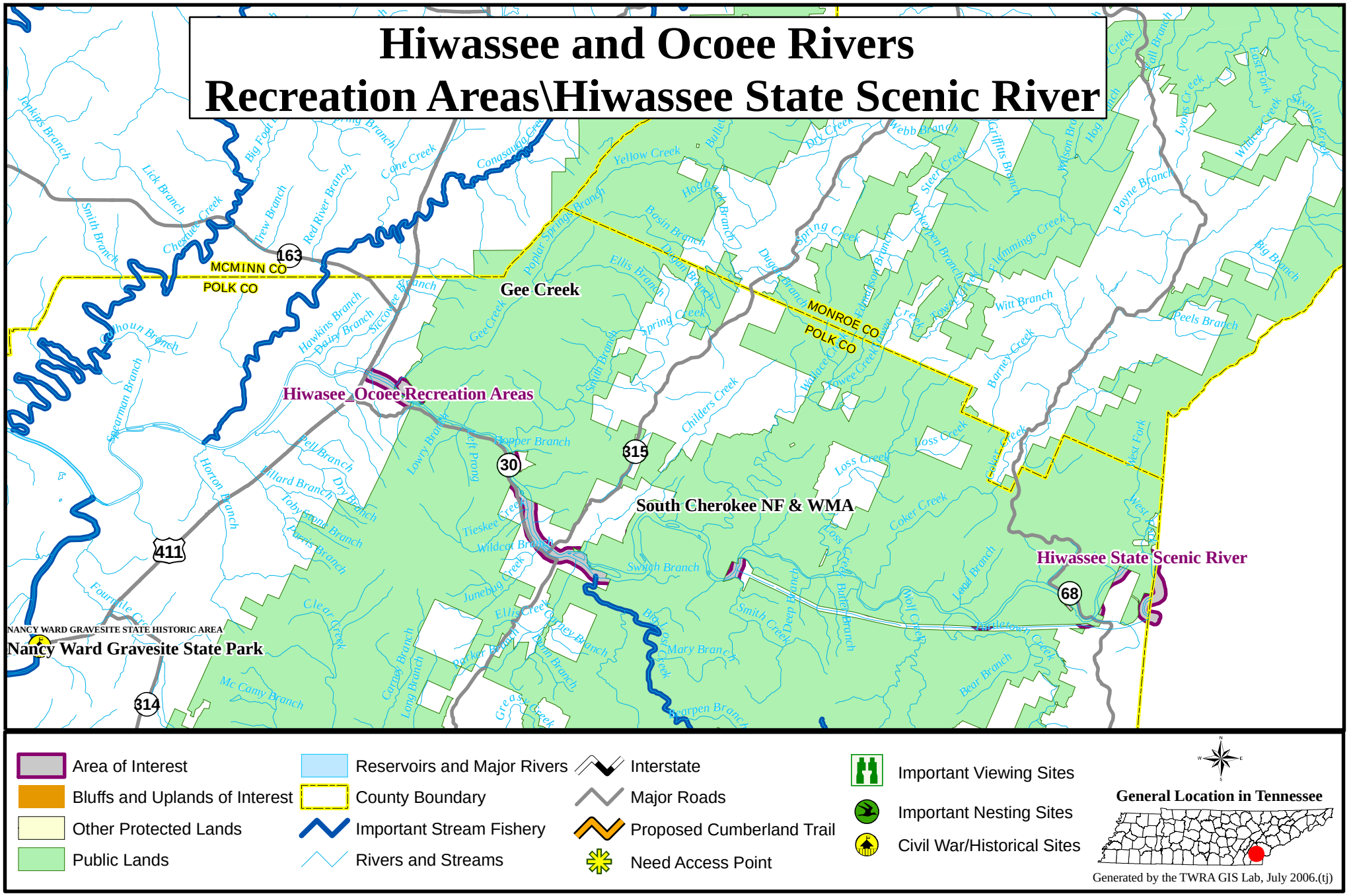
Significance - These internationally-recognized white water sites are well known for their scenic beauty and recreational opportunities. The Ocoee was the site of the canoe and kayak slalom races for the 1996 Atlanta Olympics. This park offers many opportunities for the outdoor enthusiast from rafting along the Ocoee to enjoying fishing for trout in the Hiwassee River.

Strategy - The strategy for future acquisitions for Hiwassee and Ocoee Rivers Recreation Areas is to acquire properties surrounding the park for watershed protection and properties that have significant cultural and natural features that further the wildlife, aesthetics, interpretive and recreation missions of Hiwassee and Ocoee Rivers Recreation Areas.

Land Protection Needs – 2 acres at an estimated cost of $50,000.

Potential Partners – TCF, TNC, and TDEC.

Hiwassee and Ocoee Rivers Recreation Areas\Hiwassee State Scenic River



HIWASSEE STATE SCENIC RIVER

Location – (N35.1811, W84.4090) The Hiwassee River watershed includes parts of Bradley, Meigs, McMinn, Monroe and Polk Counties and drains 1011 square miles before emptying into Chicakamauga Reservoir (Tennessee River). In 1968 approximately 23 miles of the river from U.S. Highway 411 bridge upstream to the North Carolina line in northern Polk County was designated as Class III State Scenic River. (See Hiwassee and Ocoee Rivers Recreation Areas for map)

Description - The Hiwassee River was the first river managed in the State's Scenic River Program. Its name is taken from the Cherokee word "Ayuwasi" meaning a savannah or meadow place at the foot of the hills. The river has a long history of habitation, with at least 15 archeological sites ranging from Paleo-Indian to the more recent Cherokee. The river is a classic Southern Appalachian Mountain stream surrounded by forested hills. It is a high water quality watershed despite having its flow regulated by a dam and powerhouse.

Significance - The Hiwassee State Scenic River contains populations of several rare fish, mollusks, amphibians, and plants of state and federal concern. According to a TNC/NatureServe publication entitled "Rivers of Life: Critical Watersheds for Protecting Freshwater Biodiversity", the Hiwassee River has the 31st highest number of imperiled aquatic species in the United States, with 15 at risk fish and mussel species including two listed by the USFWS.

Recreational use of the river includes canoeing, rafting, fishing, hiking and nature photography. There are numerous public access sites including boat launching ramps, picnic areas, Tennessee State Park's Gee Creek campground and the National Forest's Quinn Springs campground. The scenic John Muir Trail winds through the gorge following the river from Reliance to Hwy 68. The Hiwassee River is a coldwater tailrace that offers some of Tennessee's finest fishing for rainbow and brown trout. Striped bass, smallmouth bass and other panfish are taken with more regularity the further downstream one travels.

Exceptional scenery makes the Hiwassee River a favorite for paddlers with varying levels of expertise. The upper 13 mile section of the river between the powerhouse and the dam does not have sufficient flow for boating, however, it can be negotiated after heavy rains. This section contains a continuous series of rapids with a fall of about 17 feet per mile producing Class III and IV rapids. The lower 10-mile segment below the dam is alive with canoeists, tubers and rafters after a dam release. The rapids here are rated as Class I to III with a swift current. Scenery along this stretch of the river is spectacular. Note that the dam releases from deep within the impoundment make this a cold river.

Strategy - The site conservation plan for the Hiwassee State Scenic River follows the guidelines of the State Scenic River Act and identifies a corridor of no more than 450 feet from the usual banks of the river on each side. Additionally, connecting contiguous protected areas to state and other publicly owned lands along the entire river corridor are

a major approach toward protecting the Hiwassee River and making it a scenic greenway. Methods for conserving these areas are by fee title purchases, conservation easements, landowner assistance programs, and conservation buyers. Public and private partnerships are key to protecting and maintaining this relatively unspoiled river. Acquisition of key tracts for public access and use will be strategically targeted.

Land Protection Needs – 500 acres at an estimated cost of $550,000

Potential Partners TDEC, TWRA, TNC, USFWS, USFS, TVA, USACE, County Governments, Private Corporations, Foundations, Individual Donors.

HORNER CAVE

Location – (N36.4893, W82.9723) Horner Cave is located in Hawkins County. The mouth is found in a large sink on the west side of Hickory Cove, 0.6 mile east of Hickory Cove Church, at an elevation of 1,270 feet.

Description - According to Barr (1961): "The entrance is 15 feet wide and 8 feet high and opens into a passage 20 feet wide and 10 feet high. A fork branches off to the left 200 feet inside the cave, but the main passage continues along a high, narrow stream canyon which trends westward and southwestward. The stream that flows into the cave from the exterior sinks outside the mouth and reappears inside the cave. In places the-stream is ponded in deep pools by rimstone dams, and these pools may be waded or circumvented by chimneying. The width of the bottom of the canyon is variable and in places is so narrow that it is necessary to climb up near the ceiling and descend on the far side of the obstruction. A number of small but rather attractive formations may be seen in this branch. The left fork of the cave, near the mouth, consists of a series of crawlways, narrow crevices occupied by small streams, and a few rooms 20 to 25 feet long. The most easily penetrable part of this fork runs westward for 185 feet. Near the end are two rooms, which are reached by climbing upward to the left for 50 feet."

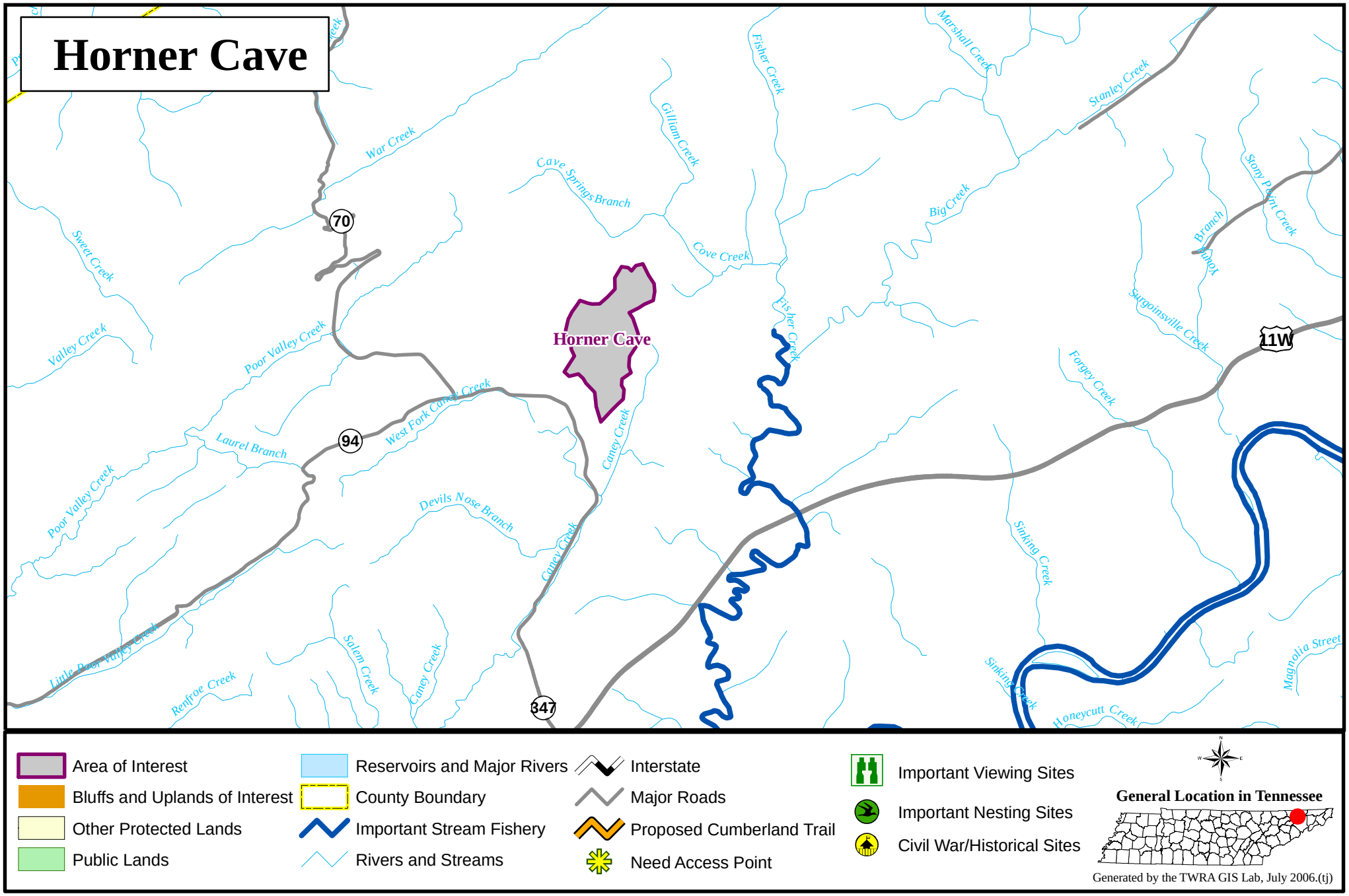
Significance - Horner Cave is home to a modestly sized colony of the state and federally endangered gray bat (*Myotis grisescens*). The summer roost was estimated to contain as many as 1,000 gray bats in 1999 and 2002 (Harvey & Britzke, 2002).

Strategy - As with any inflow cave, protecting the watershed draining into it is key to maintaining the integrity of the cave. The presence of a sizeable bat colony often implies an accompanying complex of dependent cave-obligate invertebrates, though this has not yet been determined for Horner Cave. Key to maintaining the bat roost, however, is proper control of human access to the cave at certain times of year, and establishment and management of a large forested buffer at the cave entrance. In the short term, a relatively few acres can be protected surrounding the mouth of the cave, and maintained in native hardwoods, as appropriate. The core area (and subsequent expansions) may be protected through binding conservation easements or fee simple ownership.

Aquatic cave animals likely are subject to negative impacts from excessive sedimentation, fertilizer, pesticides, animal waste, chemical spills, and agricultural & silvicultural runoff. A primary goal for any population is to control to the greatest extent possible the contributing sources in the recharge area supporting their cave habitats. The balance of the drainage should likewise be protected through various means, including but not limited to the implementation of proper agricultural and silvicultural BMP's.

Land Protection Needs – 530 acres (core area of 30 acres will protect the cave entrance and bat colony, plus an additional 500 acres will protect the recharge area of the cave) at an estimate cost of $600,000.

Potential Partners TNC, TWRA, USFWS, TDEC, NRCS.


Horner Cave
Horner Cave
War Creek
Cave Springs Branch
Gillian Creek
Fisher Creek
Marshall Creek
Stanley Creek
Big Creek
Stony Point Creek
Branch
Sweet Creek
Cove Creek
Fisher Creek
Surgoinsville Creek
11W
Valley Creek
Poor Valley Creek
Forgey Creek
70
94
West Fork Carel Creek
Laurel Branch
Caney Creek
Poor Valley Creek
Devils Nose Branch
Sinking Creek
Caney Creek
Little Poor Valley Creek
Salem Creek
Caney Creek
Renfroe Creek
347
Sinking Creek
Magnolia Street
Honeycutt Creek
Area of Interest
Bluffs and Uplands of Interest
Other Protected Lands
Public Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

HOUSE MOUNTAIN SNA

Location – (N36.0727,W83.4526) House Mountain is a 500-acre natural area located in Knox County approximately eight miles northeast of downtown Knoxville near John Sevier Hwy.

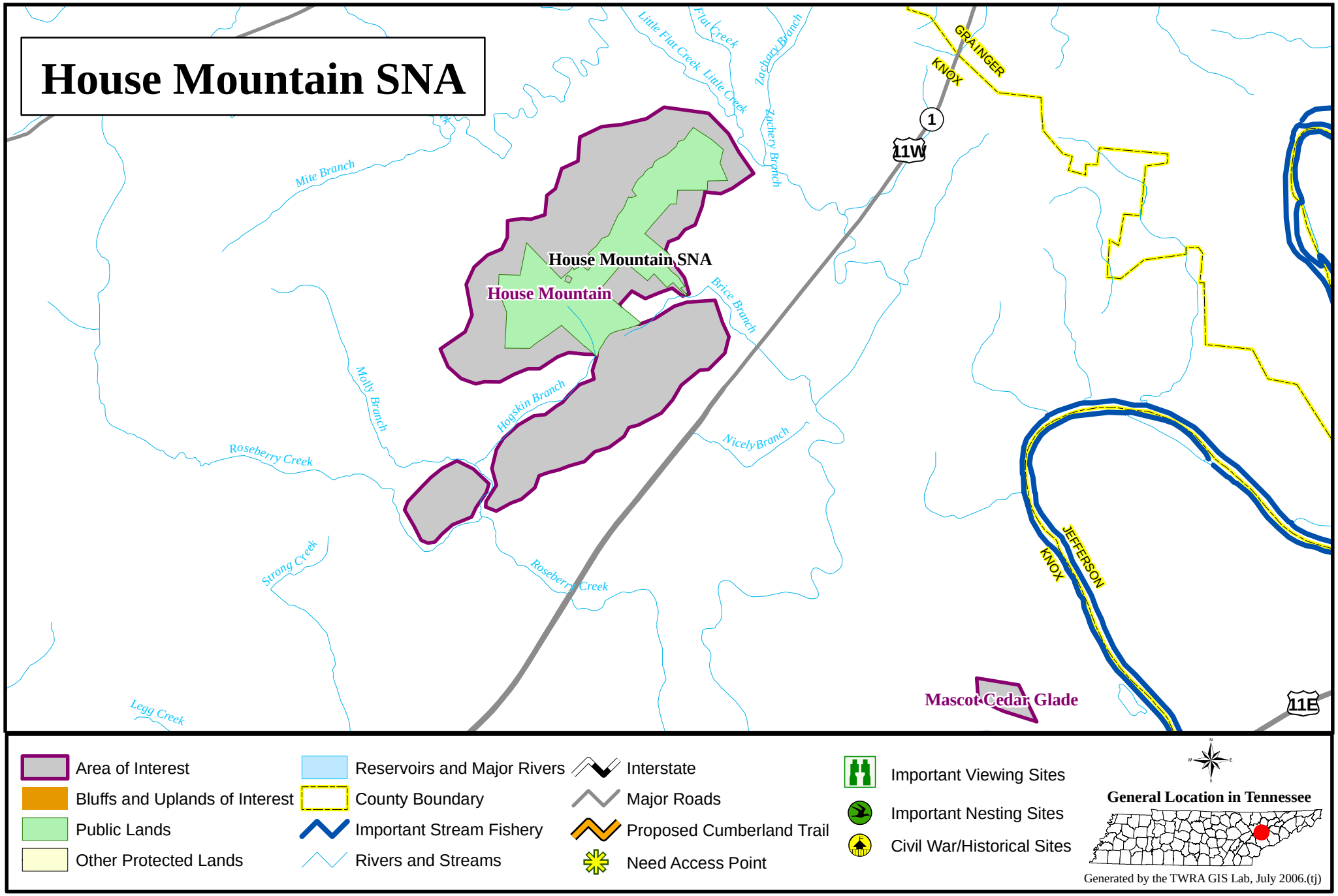
Description - The 2,100-foot crest of House Mountain provides significant vistas where visitors may scan the parallel ranges of the Unakas and Cumberlands some 30 miles away, or look northeast at the adjacent Clinch Mountain and across the valley where the Trail of the Lonesome Pine may some day lead north into Virginia. House Mountain provides a unique, nearly wilderness type of experience less than 10 miles from a major metropolitan city in Tennessee. The public uses House Mountain heavily and activities there receive much attention from the local press.

Significance - The exposed rock faces and boulders atop House Mountain are said to be the best opportunity to view the geological forces that shaped the Ridge and Valley physiographic province of East Tennessee. House Mountain joined its parent mountain, the Clinch, whose base lies approximately 2.5 miles away to the northeast. The steep slopes of House Mountain are heavily wooded and possess a unique combination of scenic views, rock outcrops, and a variety of bird and plant life. Great sandstone boulders, encrusted with lichens, crown the western rim where rock outcropping support chestnut oak and Virginia, pitch, and table mountain pine, which represent a fire-adapted forest. This is a rare combination of scenic and ecological values near a major U.S. metropolitan area.

Strategy - Protecting the view from the slopes and the crest of House Mountain is the priority for acquisition at this natural area. Located in a rapidly developing part of Knox County, the wildlife habitats and scenic vistas that these slopes and summit provide are gravely threatened. Lying immediately in front of House Mountain is McAnnally Ridge, the predominant part of the vista from the southeast, south and west aspects of the mountain. Though not as tall as House Mountain, McAnnally nonetheless dominates all southward views and is itself an impressive geologic formation, being a ridge that runs southwest all the way into the City of Knoxville. McAnnally Ridge is privately owned in several large and smaller tracts, and a prime candidate for acquisition and inclusion in the natural area should land become available. From the crest all the way down its north slopes, the property is privately owned and also potentially threatened by road development and timbering of its slopes. Recent land sales on the northeast end may provide us with our first acquisitions on the north side of the mountain. Conservation-minded landowners own many large tracts lying near the end of Clinch Mountain and they would be a good starting point to approach for conservation easements.

Land Protection Needs - 1,228 acres at an estimated cost of $3,700,000.

Potential Partners – TDEC and Knox County Government


House Mountain SNA
House Mountain SNA
House Mountain
Mascot Cedar Glade
Mite Branch
Little Flat Creek
Flat Creek
Little Creek
Zachary Branch
Zachary Branch
Brice Branch
Molly Branch
Hogskin Branch
Roseberry Creek
Nicely Branch
Strong Creek
Roseberry Creek
Legg Creek
GRAINGER
KNOX
JEFFERSON
KNOX
1
11W
11E
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

HUNTER BOG SNA AND HUNTER MARSH

Location – (N36.3799, W82.1470 and N36.3812, W82.1481W, respectively) Hunter Bog SNA and Hunter Marsh are located in Carter County adjacent to Hwy 91 approximately 3/4 mile northeast of the Hunter community.

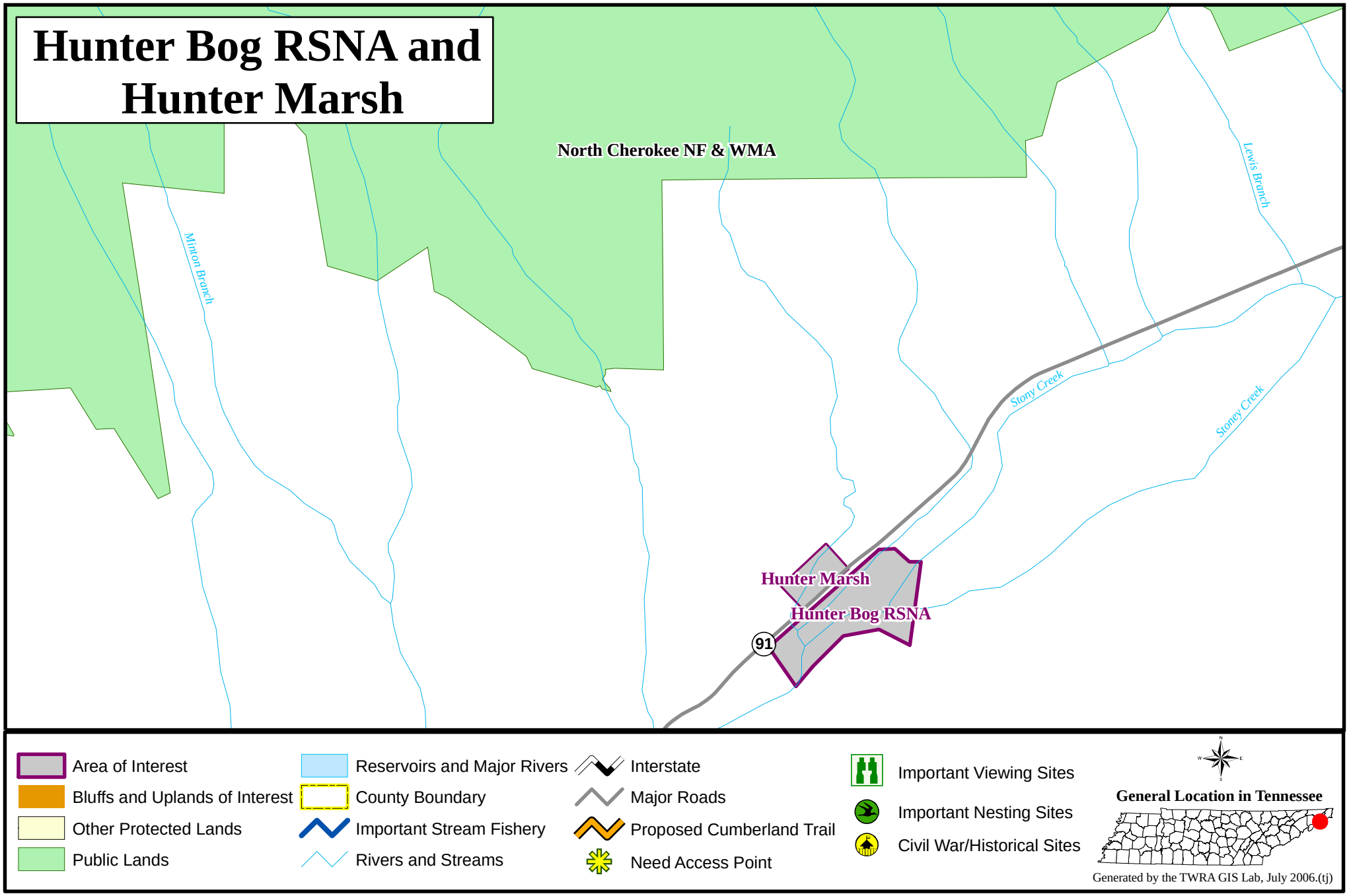
Description - Located on the Ridge and Valley, Hunter Bog SNA remains wet throughout the year due to Stoney Creek which drains Watauga Valley. Although bogs were once much more common in portions on northeast Tennessee most of these sites have been drained to make them suitable for agriculture. This bog community is especially significant due to the co-occurrence of several restricted plant and animal taxa for Tennessee. Hunter Marsh lies to the northwest across the highway from Hunter Bog. The site has been ditched and includes several houses.

Significance – Site Importance High (B3) – Rare species at Hunter Bog RSNA include *Symplocarpus foetidus* (Skunk Cabbage), *Cryptobranchus alleganiensis* (hellbender), *Panax quinquefolius* (American ginseng), *Caltha palustris* (marsh marigold). Rare elements at Hunter Marsh include: *Campanula aparinoides* (marsh bellflower), *Arenaria godfreyi* (Godfrey's stitchwort), *Hypericum ellipticum* (pale St.-John's wort), and *Caltha palustris* (marsh marigold).

Strategy - The strategy for acquisition at Hunter Bog and Marsh is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare species will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs – 33 acres at an estimated cost of $120,000.

Potential Partners – TDEC.


Hunter Bog RSNA and Hunter Marsh
North Cherokee NF & WMA
Minton Branch
Lewis Branch
Stony Creek
Stoney Creek
Hunter Marsh
Hunter Bog RSNA
91
Area of Interest
Bluffs and Uplands of Interest
Other Protected Lands
Public Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
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Important Nesting Sites
Civil War/Historical Sites
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INDIAN CAVE

Location – (N36.1611, W83.6006) Indian Cave is located in Grainger County. The mouth is found at the southeast end of Indian Ridge, on the west side of the Holston River, at an elevation of 950 feet.

Description According to Barr (1961): "Indian Cave has been developed commercially and is electrically lighted. According to Moneymaker (1929), it was opened to the public May 30, 1924, and was developed by the Indian Cave Park Association, although it had been known for many years prior to this date. A Cherokee village is said to have existed just west of the mouth.

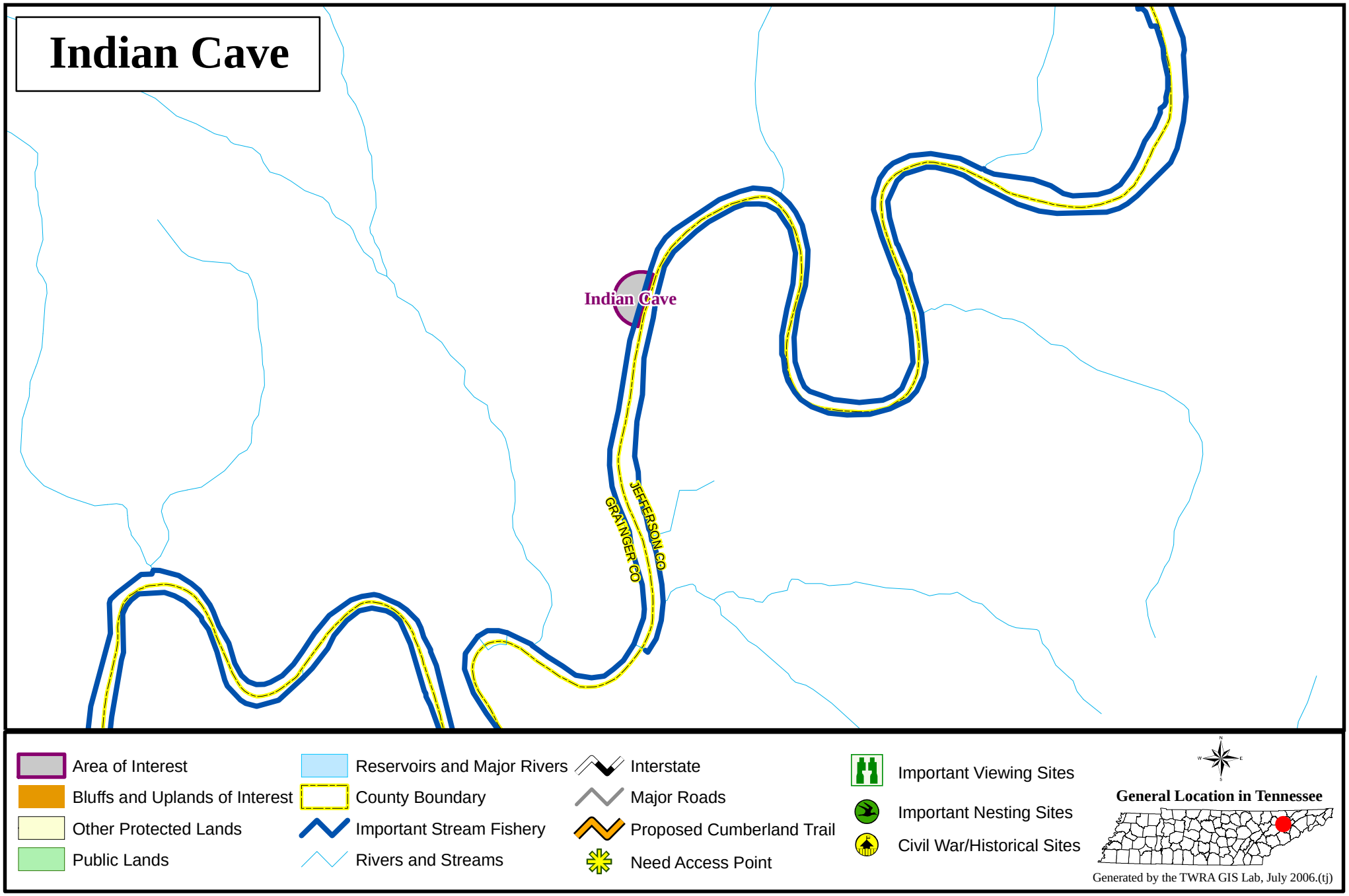
A metal gate bars the 30-foot arch of the main entrance, which opens in a bluff along the river. The cave stream issues from a lower opening. Indian Cave essentially consists of a single gallery 4,865 feet in length, 40 to 135 feet wide (average width 56 feet), and 5 to 50 feet (average 21 feet) high (Moneymaker, 1929). The cave extends northwestward and is under the control of two perpendicular joint sets. Indian River runs through the cave and is bridged at several places by walkways. Drip stone decorations are numerous but occur sporadically and are not especially large." According to the Tennessee Cave Survey, the cave is over 2.5 miles long (TCS, 2003).

Significance Indian Cave is home to at least two imperiled species, the gray bat (*Myotis grisescens,* state/federal endangered) and a cave-obligate spider (*Nesticus tennesseensis*). For the latter, Indian Cave represents only 1 of 3 known locations in the state. The gray bat colony exists as a summer roost, varying from an estimated 510-5100 bats between 1999 and 2002. Gray bat summer roosts frequently support a diverse assemblage of cave invertebrates.

Strategy Following verification of the population of *N. tennesseensis*, the mouth of the cave may need to be secured to prevent vandalism and permit continued use by gray bats. The condition of the historic commercial gate is unknown. Additional surveys are needed to determine the presence of other rare cave species.

Land Protection Needs – 14 acres at an estimated cost of $20,000. Ideally, the entire recharge area for the cave can be acquired or protected. However, because the recharge area is not evident from the topographic map, the initial goal is to protect a minimum 14-acre tract surrounding the mouth of the cave. Maintaining this as a forested corridor to the Holston River will benefit the gray bat colony.

Potential Partners TNC, USFWS, TWRA, TVA, TDEC


Indian Cave
Indian Cave
JEFFERSON CO
GRAINGER CO
Area of Interest
Bluffs and Uplands of Interest
Other Protected Lands
Public Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

KELLY RIDGE CAVE (KELLY HOLE)

Location - (N35.6539, W83.8153) Kelly Ridge Cave is located in Blount County. The mouth is found at the junction of Kelly Ridge and Rich Mountain, 1200 feet WSW of Fry Fields, approximately 0.14 mile NW of the border of Great Smoky Mountains National Park (GSMNP).

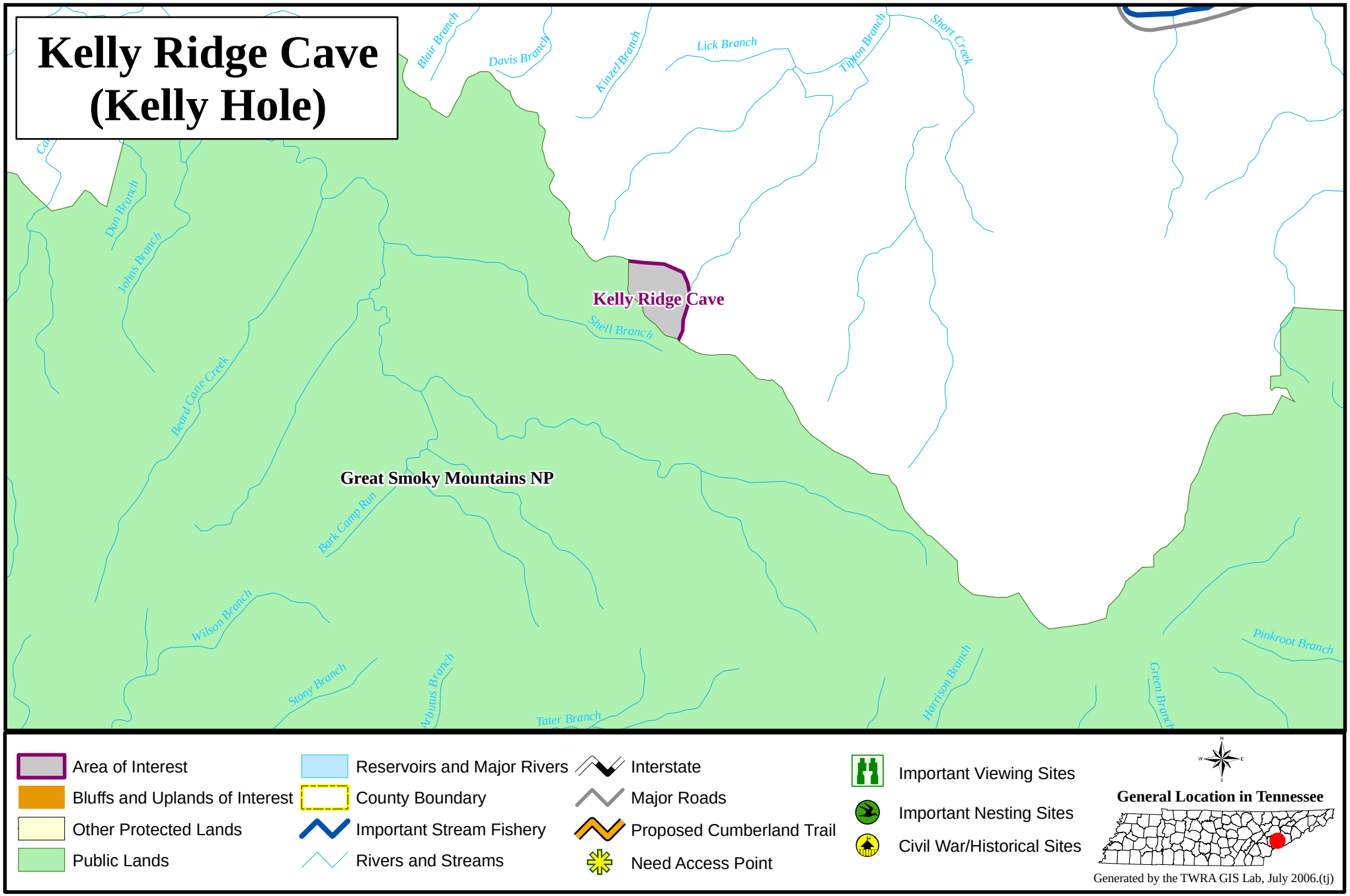
Description - Matthews (1971) notes that a walk-in entrance leads to a 50-foot drop, but that this was not explored. According to the Tennessee Cave Survey the cave is over 4400 feet long, over 550 feet in vertical extent, and contains 3 pits (TCS, 2003).

Significance - Kelly Ridge Cave supports a small but significant winter roost of the imperiled Indiana bat (*Myotis sodalis*, state/federal endangered). During the winter of 2001-02, 360 Indiana bats were found in the cave. Even this apparently small number is worthy of protection.

Strategy - The cave and surrounding lands should be acquired and added to the GSMNP. Entrance to the cave should be limited to summer months only.

Land Protection Needs - 80 acres bordering GSMNP at an estimated cost of $350,000.

Potential Partners - TDEC, TNC, USFWS, and NPS.


Kelly Ridge Cave
(Kelly Hole)
Blair Branch
Davis Branch
Kinzel Branch
Lick Branch
Tipton Branch
Short Creek
Dan Branch
Johns Branch
Kelly Ridge Cave
Shell Branch
Beard Cane Creek
Great Smoky Mountains NP
Bark Camp Run
Wilson Branch
Stony Branch
Arbutus Branch
Tater Branch
Harrison Branch
Green Branch
Pinkroot Branch
Area of Interest
Bluffs and Uplands of Interest
Other Protected Lands
Public Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

KYLES FORD WMA (CLINCH RIVER)

Location – (N36.3561, W83.0437) The Kyles Ford project area is located along the Clinch River floodplain in Hancock County, approximately 15 miles from the town of Sneedville, Tennessee in the Kyles Ford community off U. S. Highway 70 West.

Description - The project is adjacent to the Clinch River with fragmented forested ridges, hay and agricultural fields. The upland areas are in some places steep with bluffs. The fields are in agricultural production. TWRA currently owns 850 acres.

Significance - The Kyles Ford WMA presents several management opportunities for a variety of aquatic and terrestrial wildlife. The Clinch River contains the most diverse aquatic fauna in North America. The occurrence of listed and special concern species is unprecedented in the southeast. The recreational fisheries provided by the river are in the top three in the region in terms opportunity and aesthetics. With the acquisition of this tract the TWRA has the opportunity to capitalize on the existing attributes of the river and provide needed mitigation for identified "problem" areas associated with the property.

The Clinch River watershed of east Tennessee serves as secondary migration corridor for waterfowl, neo-tropical migratory birds, shorebirds, waterbirds, and other migratory and non-migratory bird species for the Ridge and Valley Physiographic Province. This project will be managed to protect critical wetlands and wetland-associated habitats, meet the habitat needs for waterfowl in east Tennessee along the Clinch River, as identified by the TWRA Strategic Plan for Waterfowl, and to provide important habitat benefits for priority waterfowl, neo-tropical migratory birds, shorebirds, waterbirds, and other migratory and non-migratory bird species for the Central Hardwoods Bird Conservation Region.

These areas fall within the geographic area covered by the Partners in Flight Cumberland Mountains& Ridge and Valley Plan and the Central Hardwoods BCR Implementation Plan. Wetland and grassland restoration on these properties will help meet habitat objectives for a number of priority species identified in these plans including American woodcock, Acadian flycatcher, Louisiana waterthrush, red-headed woodpecker, prothonotary warbler, worm-eating warbler, Kentucky warbler, prairie warbler, loggerhead shrike, field sparrow, grasshopper sparrow, eastern meadowlark and northern bobwhite quail.

Five state-listed plant taxa are found on Kyles Ford WMA. Similar habitats exist on the adjoining lands and therefore should provide suitable habitat for these listed species that include northern white cedar (*Thuja occidentalis*), Appalachian Bugbane(*Cimicifuga rubifolia*), Goldenseal (*Hydrastis canadensis*), Heartleaf Meehania (*Meehania cordata*), and Round-leaf Watercress (*Cardamine rotundifolia*).

Endangered or threatened wildlife found at Kyles Ford WMA

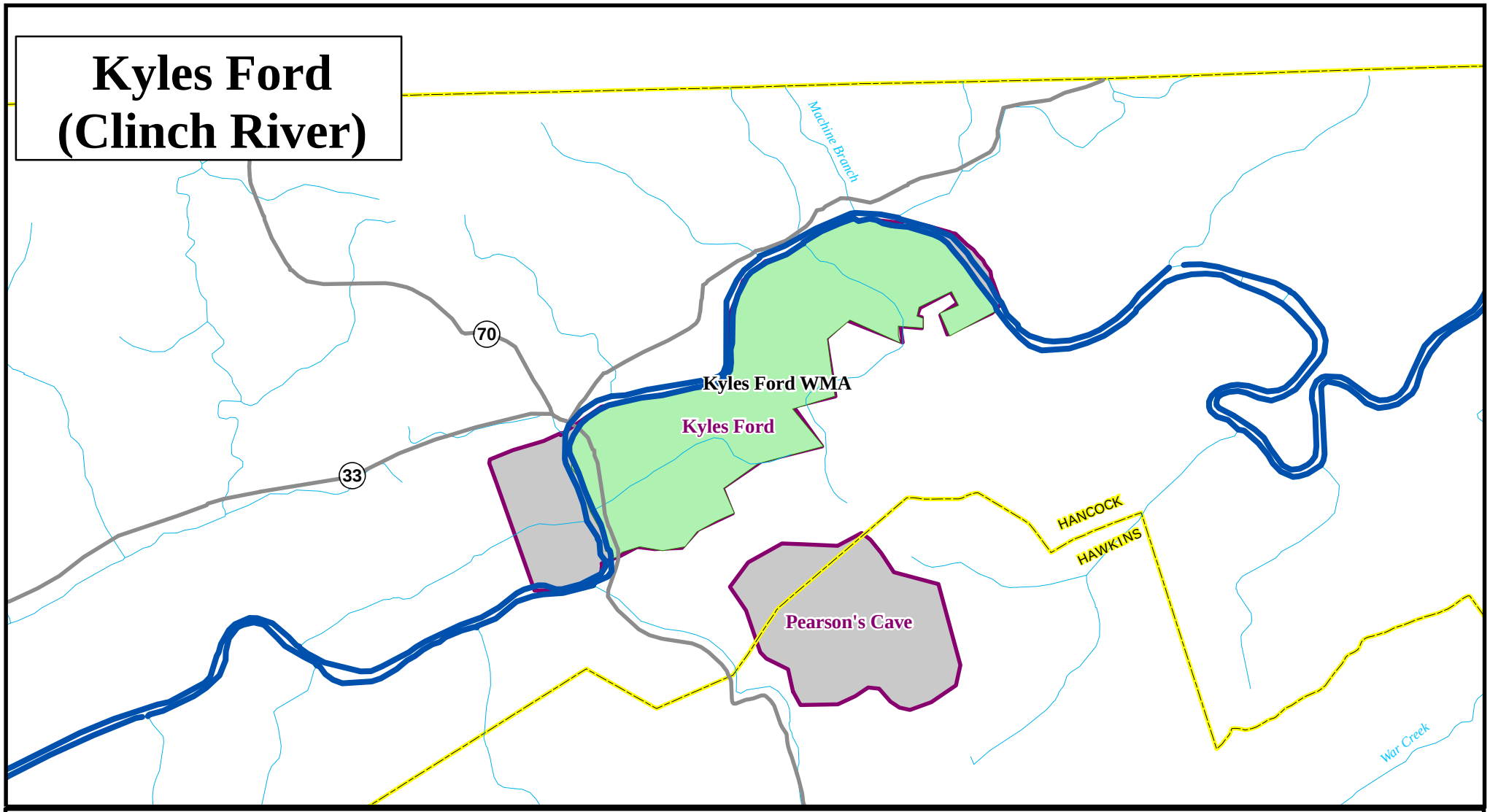
Fish	Tangerine Darter*	*Percina aurantica*
	Golden Darter	*Etheostoma denoncourti*
	Slender Chub**	*Erimystax cahni*
	Pygmy Madtom**	*Noturus stanauli*
Mammals	Indiana Bat**	*Myotis sodalis*
	Gray Bat**	*Myotis grisescens*
	Allegheny Woodrat	*Neotoma magister*
	Eastern Big-eared Bat*	*Corynorhinus rafinesquii*
Mollusks	Spiny Riversnail	*Io fluvialis*
	Cumberland Moccasinshell	*Medionidus conradicus*
	Cracking Pearlymussel**	*Hemistena lata*
	Shiny Pigtoe**	*Fusconaia edgariana*
	Fine-rayed Pigtoe**	*Fusconaia cuneolus*
	Purple Bean**	*Villosa perpurpurea*
	Rough Rabbitsfoot Pearly Mussel**	*Quadrula cylindrica strigillata*
	Fluted Kidneyshell**	*Ptychobranchus subtentum*
	Tennessee Clubshell	*Pleurobema oviforme*
	Spectaclecase	*Cumberlandia monodonta*
	Dromedary Pearlymussel**	*Dromus dromas*
	Eastern Fanshell Pearly Mussel **	*Cyprogenia irrorata*
	Birdwing Pearlymussel**	*Condradilla caelata*
	Cumberlandian Combshell**	*Epioblasma brevidens*
	Oyster Mussel**	*Epioblasma capsaeformis*
	Snuffbox	*Epioblasma triquetra*
	Green-blossom**	*Epioblasma torulosa gubernaculums*
	Yellow-blossom**	*Epioblasma florentina florentina*
	Slabside Pearlymussel**	*Lexingtonia dolabelloides*
	Pink Mucket**	*Lampsilis abrupta*
	Pyramid Pigtoe	*Pleurobema rubrum*
	Rough Pigtoe**	*Pleurobema plenum*
Insects	Long-headed Cave Beetle	*Pseudanophthalmus longiceps*

***-** Protected in TN (Quarter Quad Index- TDEC 2004)
****-** Federally protected

Land Protection Needs – 1,550 acres at a cost of $2,775,500.

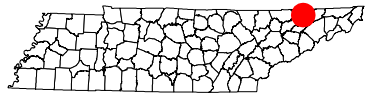
Potential Partners – TWRA, TNC, USFWS, TNC, NRCS, and TCF.

Kyles Ford (Clinch River)



Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites

General Location in Tennessee



Generated by the TWRA GIS Lab, July 2006.(tj)

LAUREL CREEK BOG SITE

Location – (N36.5504N, W81.7726) Laurel Creek Bog Site (formerly called Shingletown Branch) is located in Johnson County. The site is located approximately 0.3 miles south of Eureka on the east side of Hwy 91. There are two distinct sites on two privately owned tracts, one is a cool wet seep in a pasture/yard owned by Sam Taylor and the other is a bog remnant at the base of a steep hill in the back of the property owned by Morrison.

Description – The Taylor property contains a boggy pasture that lies along Laurel Creek, a spring fed creek near the front of the property parallel to SR 91. The wet "ditch" or seep harbors a population of Godfrey's sandwort and marsh bedstraw. The adjacent Morrison property contains a remnant bog community at the base of steep hill on flat land about 50 yards from the highway. A fence that is adjacent to the bog separates the bog on the Morrison property from the wet pasture on the Taylor property. The rare plants in the bog are skunk cabbage and crested shield fern. Cattle are allowed to graze the pasture only and they appear to be benefiting the sandwort population by reducing competition. And old elevated train bed transverses the properties parallel to the highway.

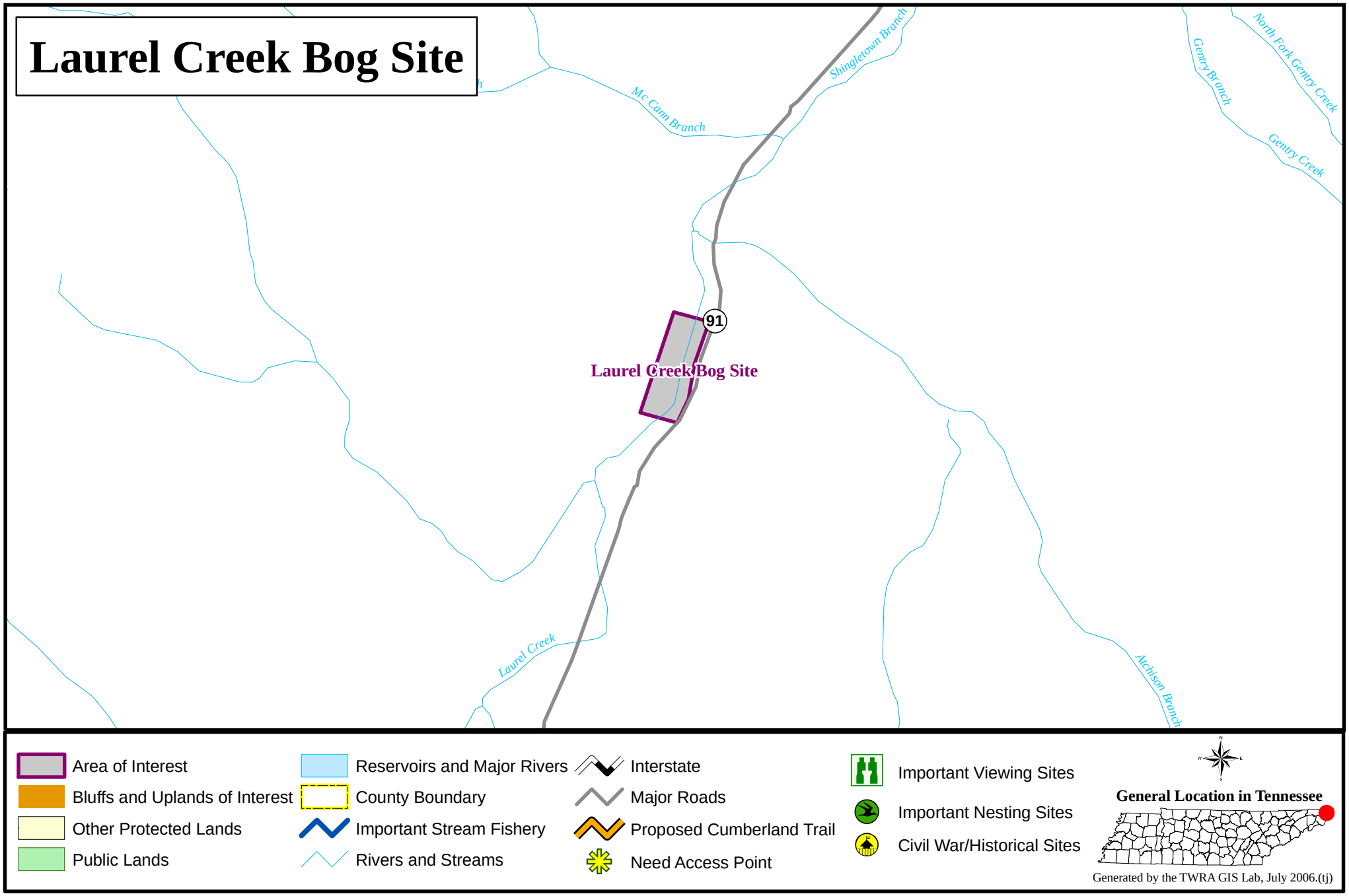
Significance – Site Importance High (B3) – The Laurel Creek site is most important for its thriving population of the state-endangered and extremely rare and critically imperiled (G1, S1) Godfrey's sandwort (*Arenaria godfreyi)*. Other significant rare plant species at the site are skunk cabbage (*Symplocarpus foetidus*), state listed as endangered and extremely rare and critically imperiled in the state (S1), marsh bedstraw (*Galium palustre*), state listed as special concern and extremely rare and critically imperiled in the state (S1), and, crested shield fern (*Dryopteris cristata*) state listed as threatened and very rare in the state (S2). The sandwort grows in the moist sunny boggy pasture, the skunk cabbage and the shield fern grow in the moist shady areas of the bog site where no grazing occurs.

Strategy - The strategy for acquisition at Laurel Creek Bog Site is to acquire the two properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare plant species will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs – 20 acres at a cost of $125,000.

Potential Partners – TDEC and TNC.

Laurel Creek Bog Site



LICK CREEK BOTTOMS WMA

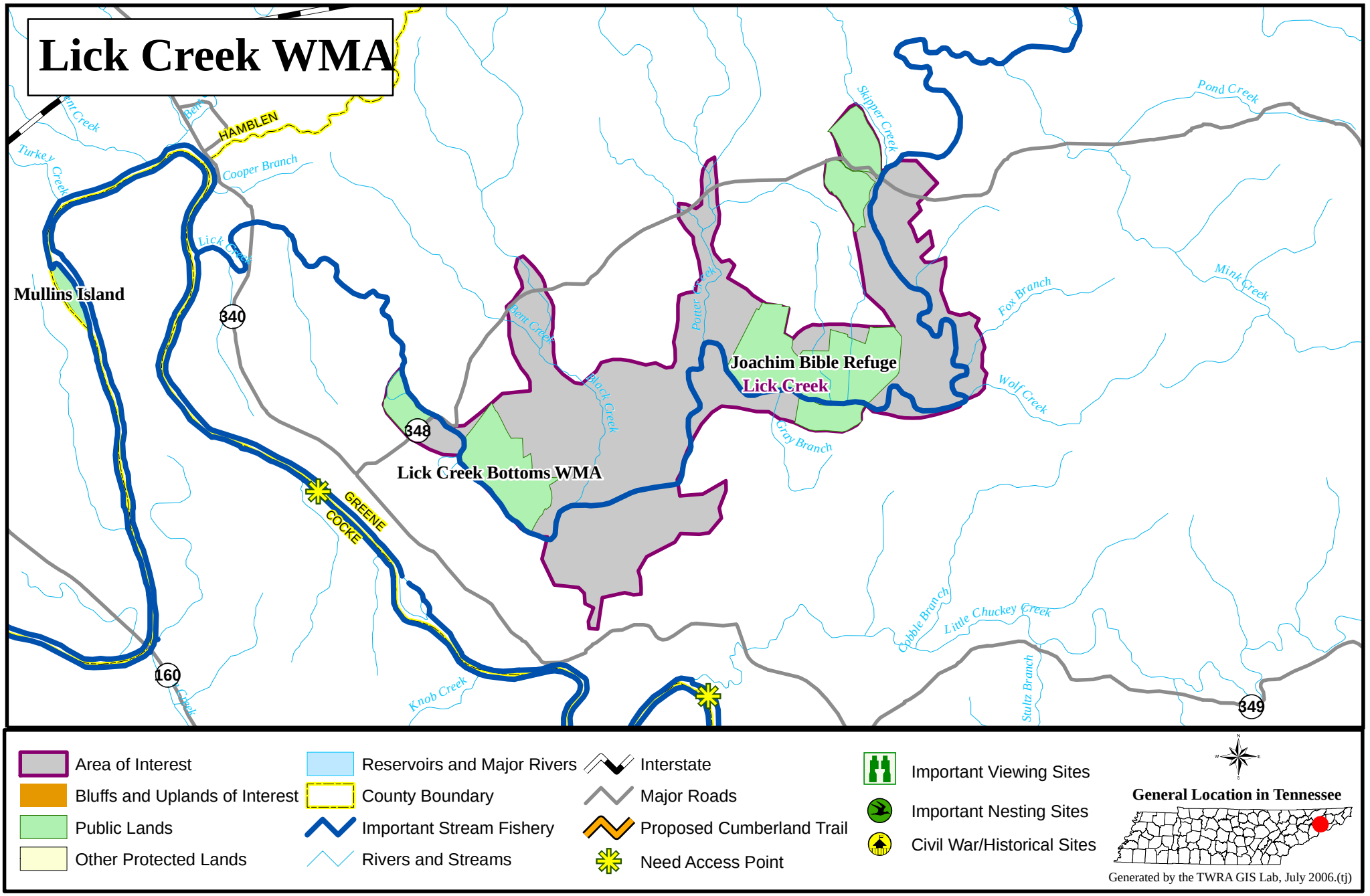
Location – (N36.1577, W83.0931) The Lick Creek project area is located along Lick Creek, a tributary to the Nolichucky River in Greene County. The area is approximately 75 miles northeast of Knoxville and 15 miles southwest of Greeneville.

Description – This project is comprised of wetlands and remnant bottomland hardwoods along an unchannelized stream. For the Ridge and Valley physiographic province, this area is moderately wide and is part of a larger wetland complex that has undergone significant alteration. Much of this area has been cleared, tiled or drained, and converted to agriculture for more than 100 years.

Significance – The Lick Creek project has been identified as the highest priority wetland protection and restoration project in the upper east Tennessee region by both TWRA and the USFWS. This project has potential to be the most significant wintering waterfowl area in east Tennessee. Acquisition and restoration will result in significant benefits to various waterfowl species such as the black duck, wood duck, mallard, and Canada Goose. The restoration of even a small amount of habitat will have significant impacts on shorebirds such as the western sandpiper, sanderling, solitary sandpiper, lesser yellowlegs, and others. Additionally, the restoration of bottomland hardwood habitats and riparian zones will impact such species as Louisiana waterthrush, Kentucky warbler, Acadian and willow flycatcher, hooded warbler, yellow-throated warbler, American woodcock, and many other migratory species.

Land Protection Needs - 1,700 acres at an estimated cost of $4,534,750.

Potential Partners – TWRA, USFWS, DU, and the East Tennessee Waterfowl Hunters Association.


Lick Creek WMA
HAMBLEN
Cooper Branch
Turkey Creek
Lick Creek
Mullins Island
340
348
160
Joachim Bible Refuge
Lick Creek
Lick Creek Bottoms WMA
Bent Creek
Black Creek
Potter Creek
Skipper Creek
Pond Creek
Fox Branch
Mink Creek
Wolf Creek
Gray Branch
GREENE
COCKE
Cobble Branch
Little Chuckey Creek
Stultz Branch
Knob Creek
349
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

MARTHA SUNDQUIST STATE FOREST

Location – (N35.8027, W83.0205) Martha Sundquist State Forest is located in the southeastern part of Cocke County near the Tennessee/North Carolina state line, just north of I-40.

Description – Martha Sundquist State Forest is approximately 2,000 acres in size and was purchased in 2001 as part of 6,500 acres sold to the State and the USFS. The forest is situated on the lower slopes of the Appalachian Mountains encompassing a large part of the Big Creek watershed. Rich cove hardwood forests along with eastern and Carolina hemlock (*Tsuga canadensis* and *T. caroliniana*) groves can be found on the forest. The forest has been well-managed for over 75 years for timber production. It is also adjacent to the Appalachian Trail with over three-fourths of the forest surrounded by the Cherokee National Forest

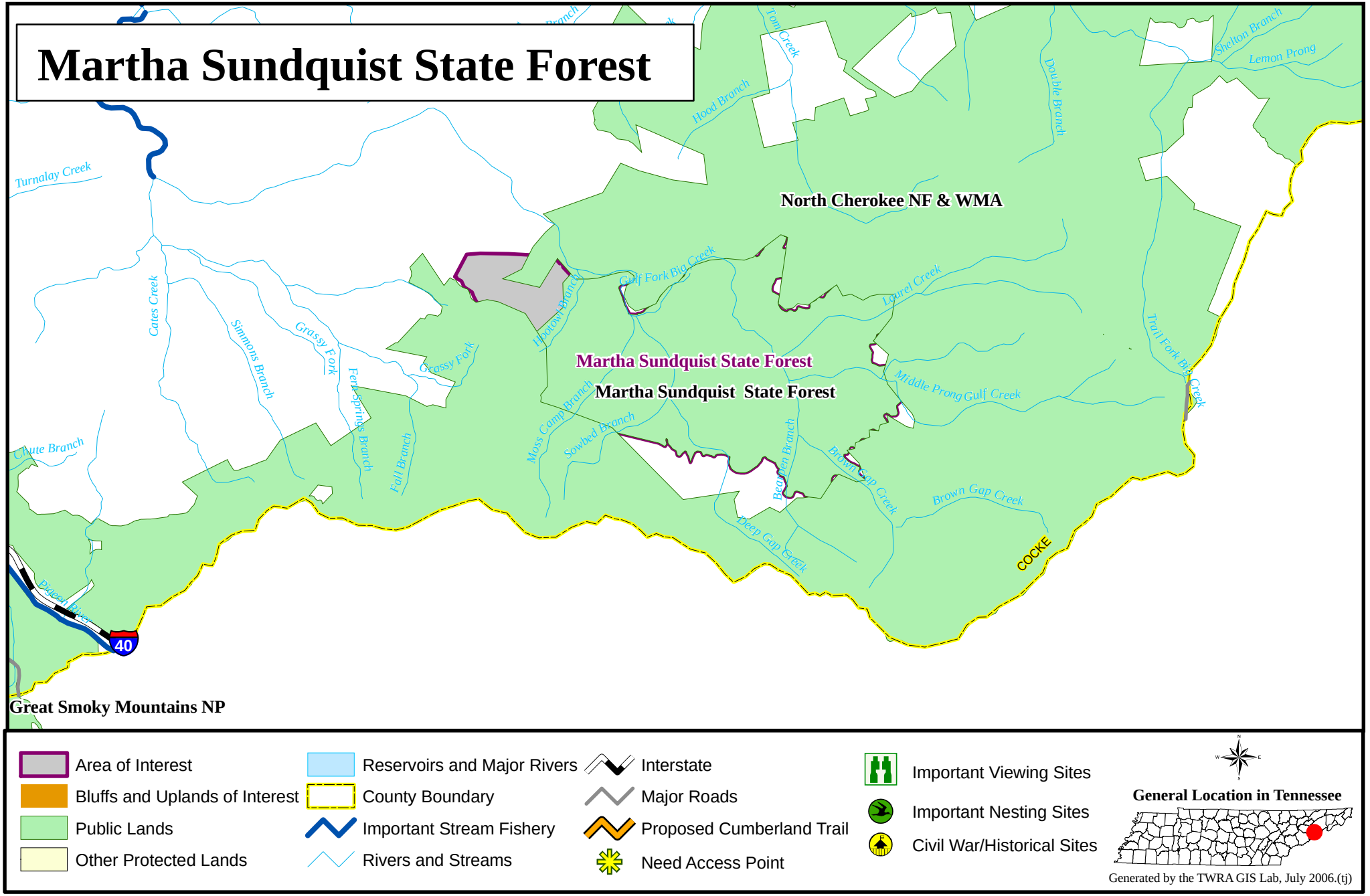
Significance – Martha Sundquist is the only State Forest in the Appalachian Hardwood forest type. Local community traditional uses and care for this area have endured for decades even through various ownerships. The cultural history of this area is rich with communities that where once found on the forest and regional mountain lore. The bond of the community to this parcel of land, better known as "The Gulf Tract", is somewhat unique to the State Forest System.

Timber production, hunting and fishing have long been the traditional uses of the forest with hiking and horseback riding growing in popularity.

Strategy – Recent announcements about a potential development project along the west boundary have caused concern regarding the protection of the scenery and traditional uses of the forest. Protecting the view shed and access to the forest is the primary acquisition criteria.

Land Protection Needs – 215 acres at an estimated cost of $297,800.

Potential Partners – TDA and Forest Legacy.


Martha Sundquist State Forest
North Cherokee NF & WMA
Martha Sundquist State Forest
Martha Sundquist State Forest
Great Smoky Mountains NP
COCKE
Turnalay Creek
Cates Creek
Simmons Branch
Grassy Fork
Fern Springs Branch
Fall Branch
Clute Branch
Dyer Branch
Hood Branch
Tom Creek
Double Branch
Shelton Branch
Lemon Prong
Gulf Fork Big Creek
Hootowl Branch
Laurel Creek
Trail Fork Big Creek
Middle Prong Gulf Creek
Moss Camp Branch
Sowbed Branch
Beaverdam Branch
Brown Gap Creek
Deep Gap Creek
40
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

MASCOT CEDAR GLADE

Location – (N36.0678, W83.7167) Mascot Cedar Glade is located in Knox County approximately 12 miles northeast of Knoxville on the north side of Mascot Road. (See House Mountain Class I Scenic Recreational SNA map)

Description – The Mascot Glade site contains an open cedar glade surrounded by a red cedar dominated forest with post and chinkapin oaks, and short leaf and Virginia pines as associates. The red cedar forest is surrounded by oak-dominated forest. Unlike the cedar glades of Middle Tennessee, no endemic plant species are present.

Significance – High Significance (B3) – This site is possibly the largest and best-known glade in East Tennessee. The site was nominated as a National Natural Landmark in the early 1970's. The adjacent land to the east is a quarry and could possibly threaten the persistence of the site.

Strategy - The strategy for acquisition at Mascot Cedar Glade is to acquire properties within the site design (site boundary) for preservation of the representative communities. Preservation of these communities will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs – 45 acres at an estimated cost of $220,000

Potential Partners – TDEC.

MEADES QUARRY CAVE

Location - (N35.9519, W83.8678) Meades Quarry Cave is located in Knox County on the Knoxville and Shooks Gap USGS topographic quadrangles. The mouth is found in Meade Quarry, 0.4 miles southwest of the Tennessee River and 0.35 miles south of Island Home.

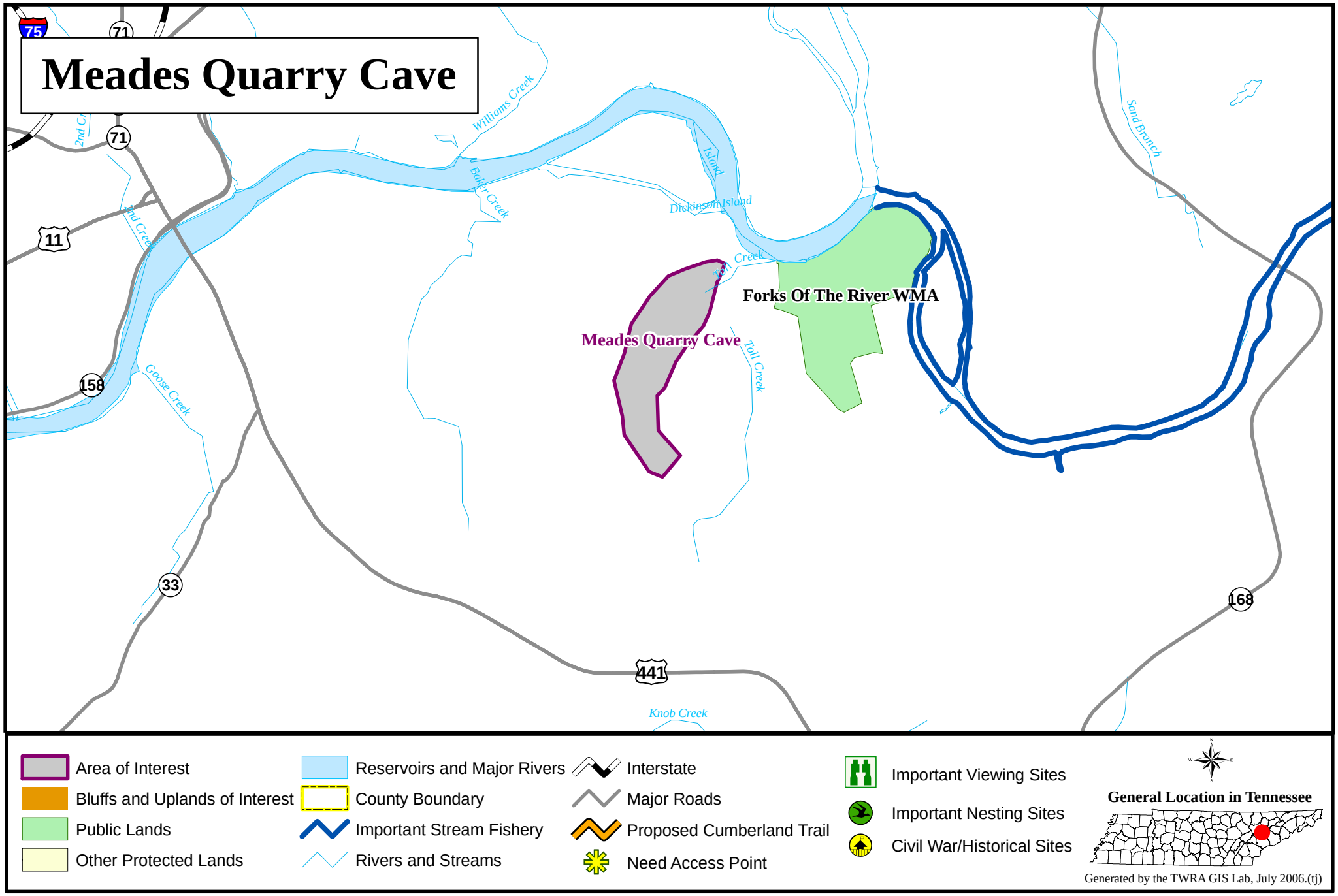
Description - Meades Quarry Cave is reported by the Tennessee Cave Survey (TCS) as containing 6,000 feet of passage (TCS, 2003). It is likely connected to at least 5 other caves or cave entrances along the same NE-SW trending strike. Extensive sinkholes are visible on the topographic map.

Significance - Meades Quarry Cave contains a stream that supports a large population of the imperiled Berry Cave salamander (*Gyrinophilus gulolineatus*, state-threatened), a species recently split from the closely related and likewise protected Tennessee cave salamander (*Gyrinophilus palleucus*). In 2004, 11 Berry Cave salamanders were observed in this cave (Miller & Niemiller, 2006).

Strategy - Members of the genus *Gyrinophilus* and their food animals are likely subject to negative impacts from excessive sedimentation, fertilizer, pesticides, animal waste, chemical spills, and urban runoff. A primary goal for any population is to control to the greatest extent possible the contributing sources in the recharge area supporting their cave habitats. Whereas excessive human access to these caves can also be problematic, *Gyrinophilus* specimens are thought to make extensive use of channels too small for human passage. As such, protecting watershed integrity must be a higher priority than limiting cave access. Regular water quality monitoring within the cave should be part of the site's management.

Land Protection Needs - 207 acres at an estimated cost of $650,000. The represent the undeveloped portions of the drainage that should be protected by acquisition or purchase of conservation easements. The remaining areas should be protected by entering into binding management agreements with willing landowners. Drainage patterns from ROWs should be evaluated and enhanced with active and passive storm water controls, as needed.

Potential Partners - TDEC, TWRA, TNC, USFWS, Knox County, and the City of Knoxville


Meades Quarry Cave
75
71
71
11
158
33
441
168
Williams Creek
Baker Creek
Island
Dickinson Island
Sand Branch
Toll Creek
Forks Of The River WMA
Meades Quarry Cave
Goose Creek
Knob Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

MORRIL'S CAVE SNA

Location – (N36.2738, W82.1342) Morril's Cave is in the Ridge and Valley located in Sullivan County approximately 2.6 miles east of Bluff City.

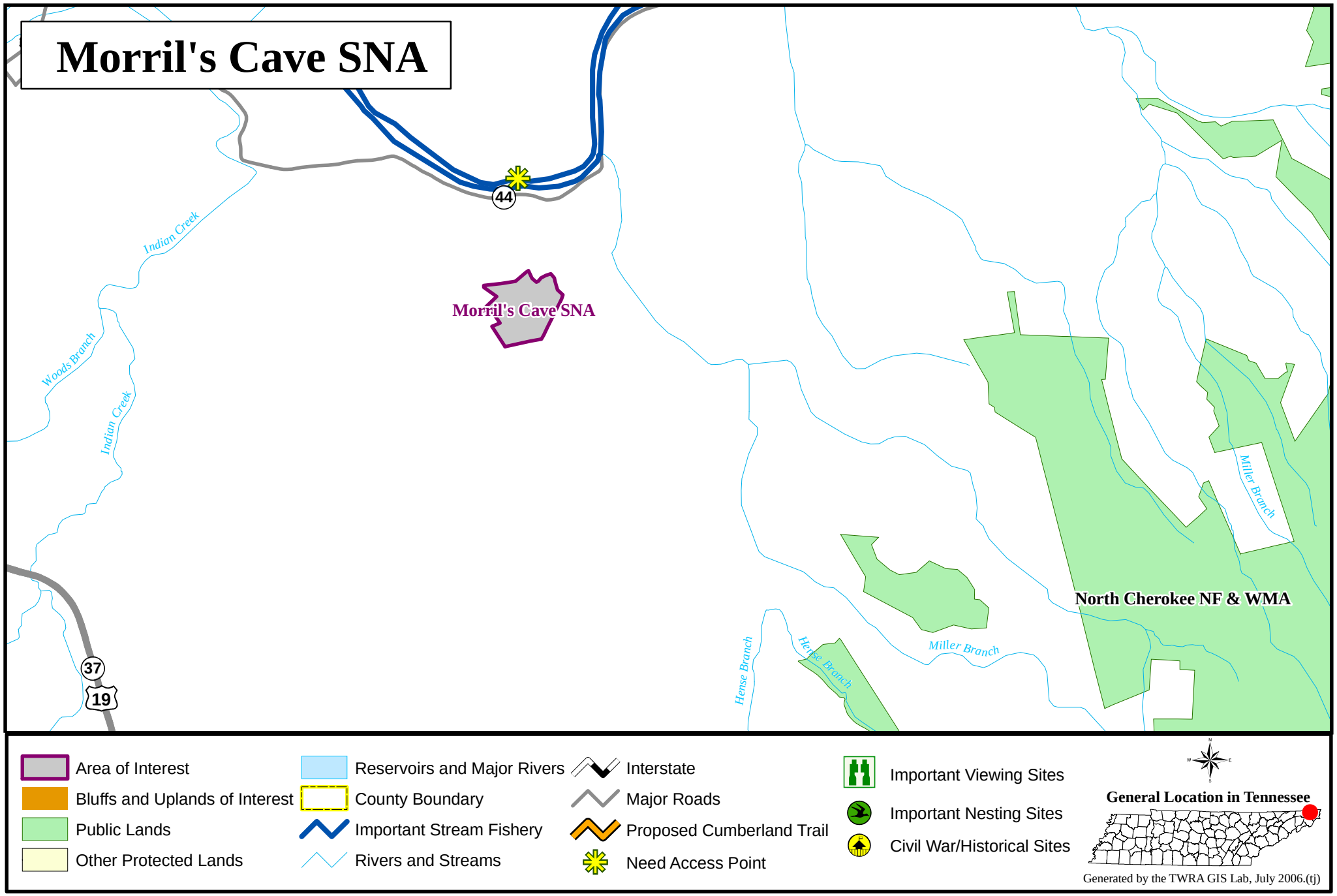
Description - Morril's Cave (a.k.a. Worley's Cave) has more than 37,000 feet of mapped passages on two levels. Morril's Cave is known for its voluminous size with rooms more than 75 feet wide and 250 feet long with high ceilings that often exceeds 100 feet. It is noted for its beautiful formations within its eight to ten miles of passages. The lower level of the cave contains a perennial creek complete with various fishes, white crayfish, and salamanders. Morril's Cave is gated to protect the bat population that uses the cave seasonally.

Significance - The cave is significant as being one of the largest caverns in Tennessee. It has ecological significance (B3) as a home to the gray bat (*Myotis griscesens*) and a cave spider (*Nesticus paynei*). Historically, the cave has been known since the earliest settlement of Sullivan County and was used for saltpeter mining during the Civil War, with many historical elements of the mine remaining within the cavern. The cave has some of the largest rooms of any known cave in Tennessee and is heavily utilized by the public for recreation.

Strategy - Presently, Morril's Cave lies beneath private property even though it is a designated SNA. The landowner lives in North Carolina and her son lives at the site. The tract of land is approximately 50 acres. Should the property come on the market in the future, the State should consider purchase at that time in order to attain more control over potential threats to the cave. Benefits of property ownership should be weighed against the need for on-site presence.

Land Protection Needs - 61 acres at an estimated cost of $225,000.

Potential Partners – TDEC and TNC**.**


Morril's Cave SNA
44
Indian Creek
Morril's Cave SNA
Woods Branch
Indian Creek
Miller Branch
North Cherokee NF & WMA
Hense Branch
Hense Branch
Miller Branch
37
19
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

MUD FLATS CAVE

Location - (N35.8858; W84.0925) Mud Flats Cave is located in Knox County. The mouth is found 400 feet south of Fort Loudoun Lake and 0.45 mile northwest of West Emory, at an elevation of 870 feet.

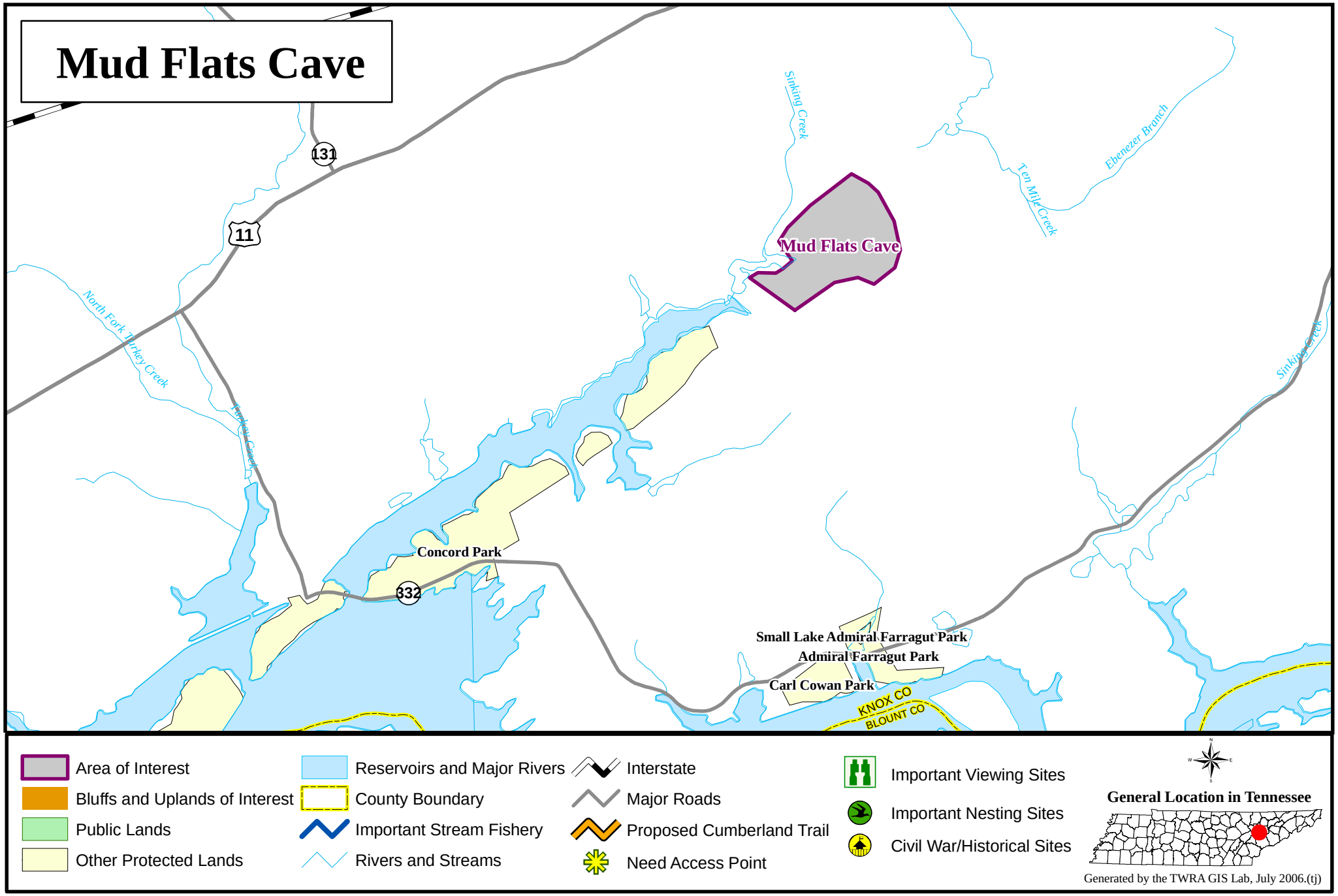
Description - According to Matthews (1971): "A large passage extends west from the entrance for 200 feet, then drops to a stream passage and trends east for 500 feet." It is likely hydrologically connected to several sinkholes in the vicinity, including the Fox Bone-Three Hole Cave system.

Significance - Mud Flats Cave contains a stream that supports a significant population of the imperiled Berry Cave salamander (*Gyrinophilus gulolineatus*, state-threatened), a species recently split from the closely related and likewise protected Tennessee cave salamander (*Gyrinophilus palleucus*). In 2004, 5 Berry Cave salamanders were observed in this cave (Miller & Niemiller, 2006). A small gray bat (*Myotis grisescens*, state/federal endangered) colony was reported in the 1970's, and the hellbender salamander (*Cryptobranchus alleganiensis*, state "in-need-of-management") was found in the outflow of an adjacent cave.

Strategy - Members of the genus *Gyrinophilus* and their food animals are likely subject to negative impacts from excessive sedimentation, fertilizer, pesticides, animal waste, chemical spills, and urban runoff. A primary goal for any population is to control to the greatest extent possible the contributing sources in the recharge area supporting their cave habitats. Whereas excessive human access to these caves can also be problematic, *Gyrinophilus* specimens are thought to make extensive use of channels too small for human passage. As such, protecting watershed integrity must be a higher priority than limiting cave access. Regular water quality monitoring within the cave should be part of the site's management. Dye tracing is recommended to further refine the boundaries of the recharge area, including an examination of additional sinking streams in the nearby Echo Valley and Ebenezer communities.

Land Protection Needs - 216 acres (immediate recharge area) at an estimated cost of $750,000. The developed areas should be protected by entering into binding management agreements with willing landowners. Drainage patterns from ROWs should be evaluated and enhanced with active and passive storm water controls, as needed.

Potential Partners - TDEC, TWRA, TNC, USFWS, Knox County


Mud Flats Cave
131
11
Sinking Creek
Ten Mile Creek
Ebenezer Branch
Mud Flats Cave
North Fork Turkey Creek
Turkey Creek
Sinkiba Creek
Concord Park
332
Small Lake Admiral Farragut Park
Admiral Farragut Park
Carl Cowan Park
KNOX CO
BLOUNT CO
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
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PANTHER CREEK STATE PARK

Location – (N36.2189, W83.3970) Panther Creek State Park is located near Morristown in Hamblen County on the banks of Cherokee Lake.

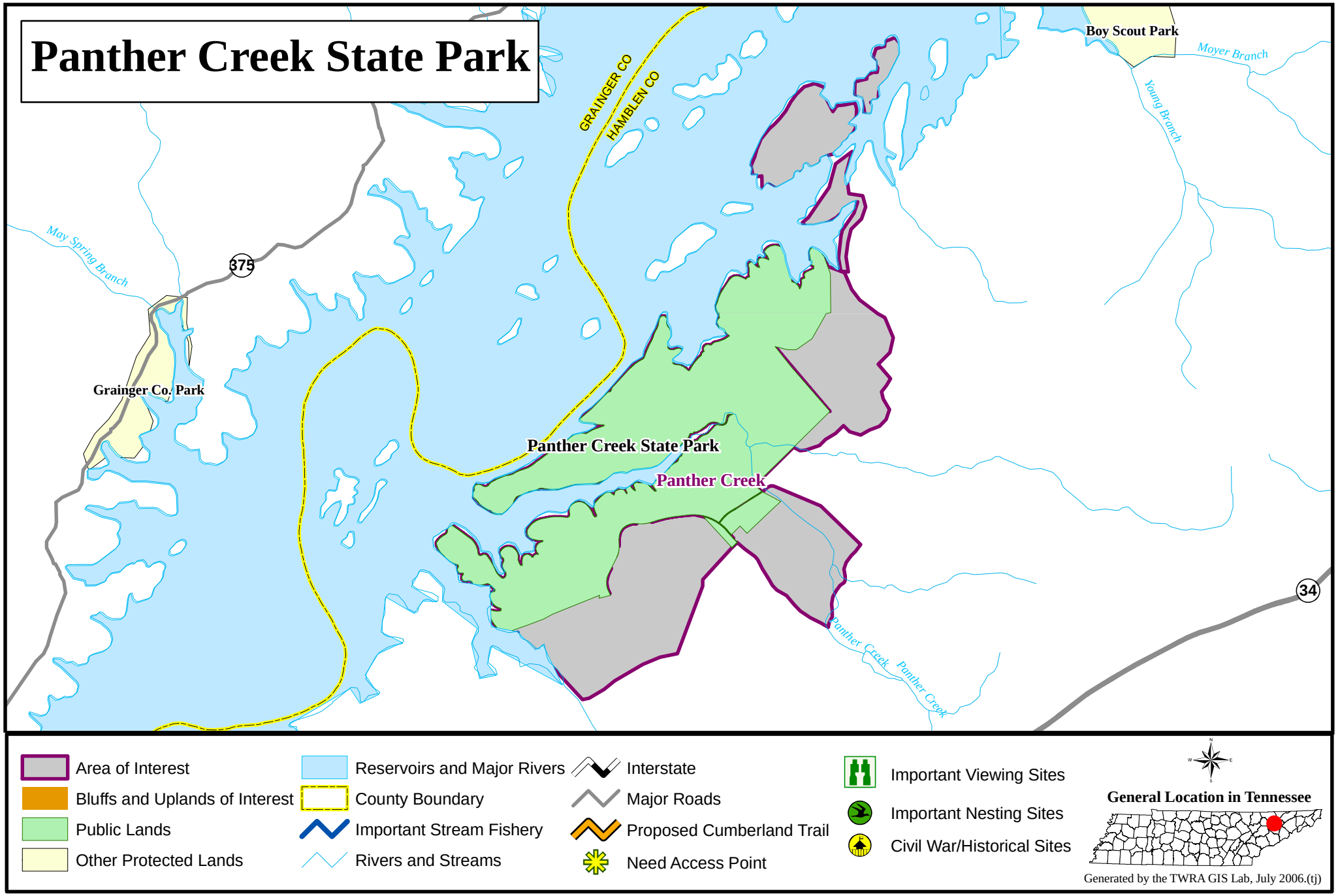
Significance - The park covers approximately 1,435 acres on the shore of Cherokee Lake and offers a variety of recreational opportunities including camping, fishing, boating, swimming, picnicking, hiking, biking and horseback riding.

Pioneers from North Carolina and the older Watauga Settlement in East Tennessee arrived in this area around 1785. Panther Springs, at one time, was the first stop on the stagecoach route out of Knoxville on the way to Abingdon, Virginia. Prior to that time, the Cherokee Indians were the most prominent Native American tribe in the area.

Strategy - The strategy for future acquisitions for Panther Creek State Park is to acquire properties surrounding the park for watershed protection and properties that have significant cultural and natural features that further the wildlife, aesthetics, interpretive and recreation missions of Panther Creek State Park.

Land Protection Needs – 390 acres at an estimated cost of $1,430,000.

Potential Partners – TCF, TDEC, and TNC.


Panther Creek State Park
GRAINGER CO
HAMBLEN CO
Boy Scout Park
Moyer Branch
Young Branch
May Spring Branch
375
Grainger Co. Park
Panther Creek State Park
Panther Creek
34
Panther Creek
Panther Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

PEARSON CAVE

Location - (N36.5525, W83.0166) Pearson Cave is located in Hawkins County. The mouth is 0.5 miles northeast of Lonesome Pine School, in the floor of Kyle Valley, 100 feet north of the Valley Road, in a large sinkhole, at an elevation of 1,420 feet. (See Kyles Ford map)

Description - According to Barr (1961): "A narrow slot and a 50-foot drop both open into the entrance room -a large chamber 60 feet wide, 50 feet high, and 150 feet long, which trends west. At the west end are three forks. The left fork, which is the main cave, contains a stream. It continues west beyond the entrance room for 100 feet, then bends N. 30^{o} W. for an additional 120 feet, and terminates in a siphon. This passage averages 12 feet high and 8 feet wide. The middle fork is of similar dimensions and extends N. 65 ^{o} W. for 90 feet. The right fork is a sinuous slot which runs northeast for 135 feet." The Tennessee Cave Survey (TCS) indicates that Pearson Cave includes 4,000 feet of mapped passages (TCS, 2003).

Significance - Pearson Cave is one of the highest priority gray bat (*Myotis grisescens*, state and federally endangered) caves in Tennessee, containing an estimated 18,500 and 365,841 bats in summer and winter roosts, respectively (Harvey & Britzke, 2002). Pearson Cave supports twice as many gray bats in winter as any other cave in Tennessee. The cave historically supported a winter roost of 5000 Indiana bats (*Myotis sodalis*, state/federal endangered), though none were observed during the winter of 2001-02 (Harvey & Britzke, 2002). The cave also contains a winter roost of the eastern big-eared bat (*Corynorhinus rafinesquii*, deemed in-need-of-management).

Strategy - As with any inflow cave, protecting the watershed draining into it is key to maintaining the integrity of the cave. The presence of any large bat colony often implies an accompanying complex of dependent cave-obligate invertebrates, though this has not yet been determined for Pearson Cave. Key to maintaining the bat roosts, however, is proper control of human access to the cave at certain times of year, and establishment and management of a large forested buffer at the cave entrance. Establishment of a forested buffer to the nearby Clinch River also is prudent. In the short term, a relatively few acres can be protected surrounding the mouth of the cave, and reforested in native hardwoods, as appropriate.

Aquatic cave animals are subject to negative impacts from excessive sedimentation, fertilizer, pesticides, animal waste, chemical spills, and agricultural and silvicultural runoff. A primary goal for any population is to control to the greatest extent possible the contributing sources in the recharge area supporting their cave habitats. The balance of the recharge area should be likewise protected through various means, including but not limited to the implementation of proper agricultural and silvicultural BMP's.

Land Protection Needs – 450 acres (core of 20 acres plus 430 acres to protect the recharge area) at an estimated cost of $1,000,000.

Potential Partners - USFWS, TWRA, TNC, TDEC, and NRCS.

RED CLAY STATE HISTORIC PARK

Location – (N334.9901, W84.9454) Located in southeast Tennessee on the Tennessee Georgia border in Bradley County.

Significance - Red Clay Historic Area encompasses 260 acres of forested ridges and narrow valleys formerly used as cotton and pasture land.

Red Clay served as the seat of Cherokee government from 1832 until the forced removal of the Cherokee in 1838. By 1832, the State of Georgia had stripped the Cherokee of their political sovereignty, and had banned all political activity in Georgia. As a result, the Cherokee capital was moved from New Echota, Georgia, to Red Clay, Tennessee. At Red Clay the Trail of Tears really began, for here the Cherokee learned that they had lost their mountains, streams and valleys forever.

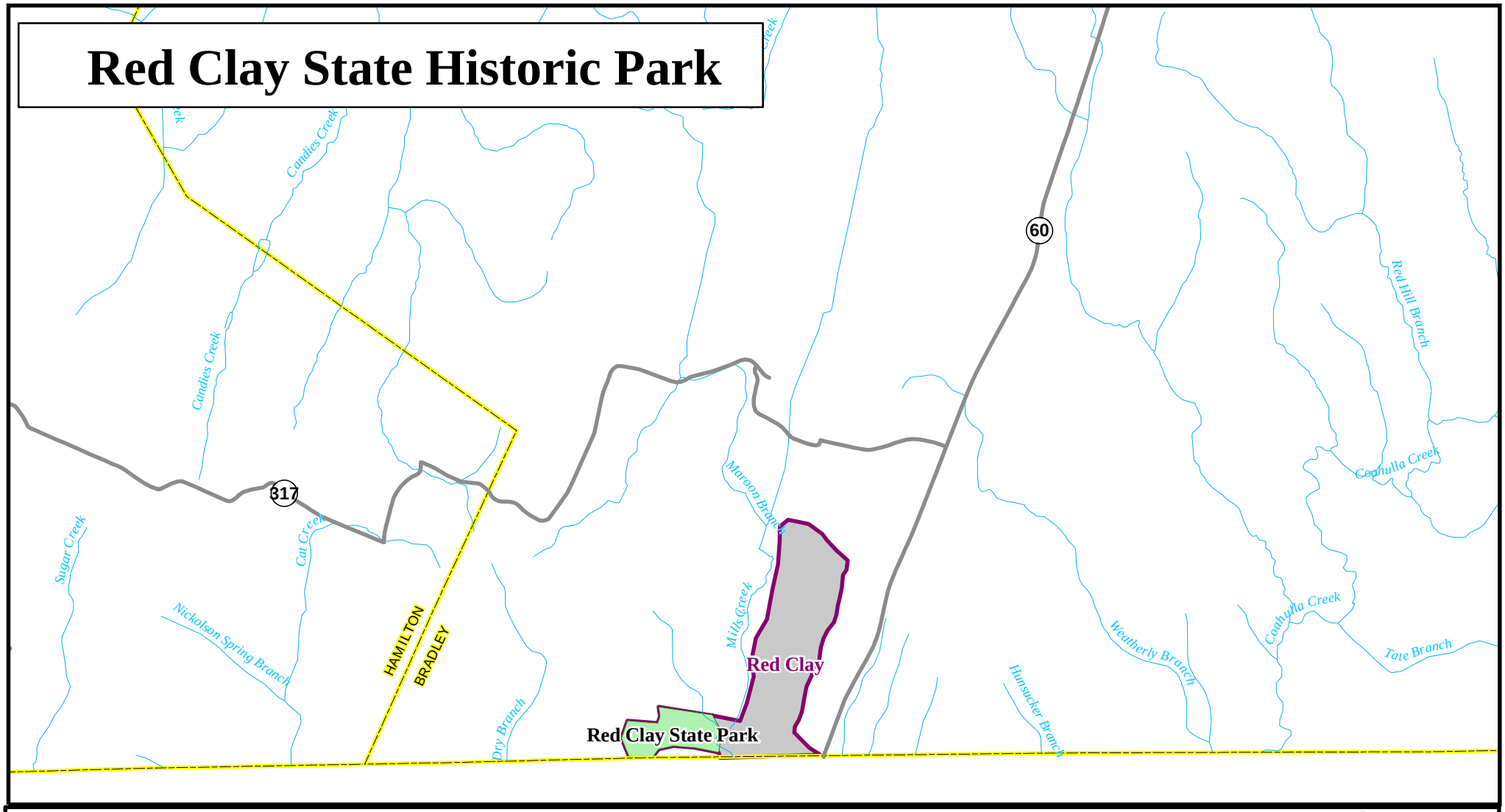
Council Spring contains an undescribed and presumably rare aquatic snail (Hydrobiidae) that would benefit from additional land protection.

Strategy - The strategy for future acquisitions for Red Clay State Historic Park is to acquire in holdings and properties surrounding the park for watershed protection and properties that contain representative forest cover that further the wildlife, aesthetics, interpretive and recreation missions of Red Clay State Historic Park.

Land Protection Needs – 190 acres at an estimated cost of $440,000.

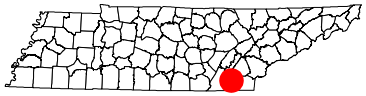
Potential Partners - TCF, TNC, and TDEC.

Red Clay State Historic Park



Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites

General Location in Tennessee



Generated by the TWRA GIS Lab, July 2006.(tj)

REEDY CREEK COVE

Location - (N36.5656, W82.4489) Reedy Creek Cove is located in Sullivan County on the south side of Hwy 11W (Lee Highway), 7.3 miles northeast of Hwy 93.

Description - This 22.5 acre site is within the Ridge and Valley Physiographic Province and primarily consists of a slope forest above the floodplain of Reedy Creek. The south part of the cove is part of a north-facing slope that runs along the creek, and the cove is formed by a spur ridge descending to the west. The flora is rich for a small area with over 170 species of vascular plants present, including many showy spring wildflowers.

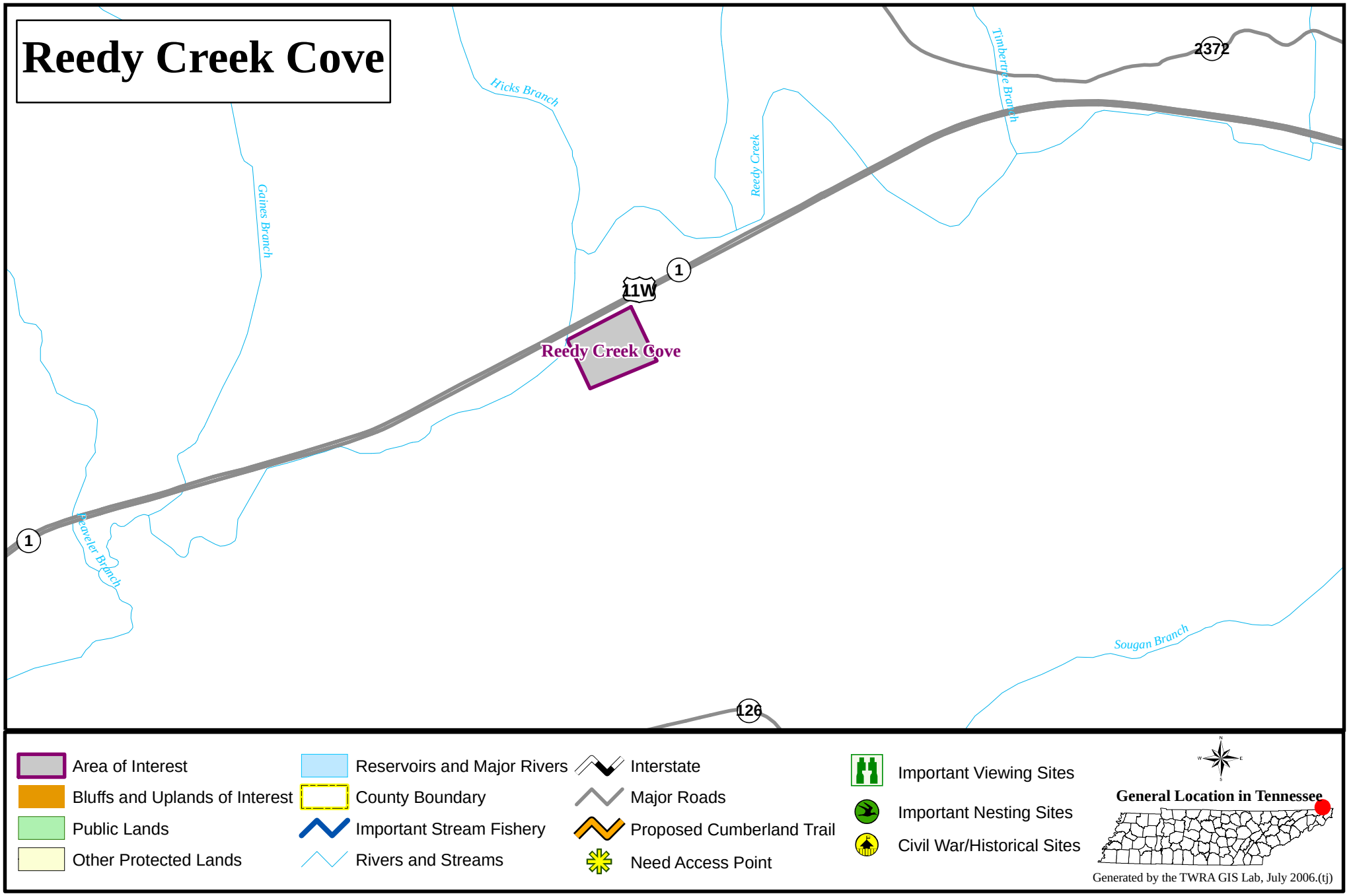
The sheltered portion of the cove possesses mixed mesophytic forest of red oak, basswood, yellow buckeye, and cucumber magnolia. Black maple, chinkapin oak, red cedar, and redbud are present on the slopes over the thinner limestone-derived soils.

Significance - Included in the diverse flora at Reedy Creek Cove are four state-listed plant species. The two most significant are *Cimicifuga rubifolia* (Appalachian bugbane) and *Hydrophyllum virginianum* (Appalachian waterleaf). Both species occur in rich woods, are listed as state threatened and are considered rare and uncommon in Tennessee. *C. rubifoia* is considered rare and uncommon globally and occurs only in six states.

Strategy - Past documentation has indicated the site was considered for development, and the current landowner has been cited for some water quality violations. However, a 2006 site visit determined that the site is still intact and has conservation value. Prior to any conservation action, the site should again be evaluated to determine the extent and numbers of the rare species present.

Land Protection Needs – 22.5 acres at an estimated cost of $70,000.

Potential Partners - TDEC and TNC**.**


Reedy Creek Cove
Hicks Branch
Reedy Creek
Timbertree Branch
2372
Gaines Branch
1
11W
Reedy Creek Cove
1
Beaver Branch
Sougan Branch
126
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

RIPSHIN BOG

Location – (N36.1662, W82.1507) Ripshin bog is located southwest of the city of Roan Mountain and approximately 2.0 miles west of Roan Mountain State Park in Carter County. The bog is adjacent to Ripshin Lake and along Roaring Creek Road.

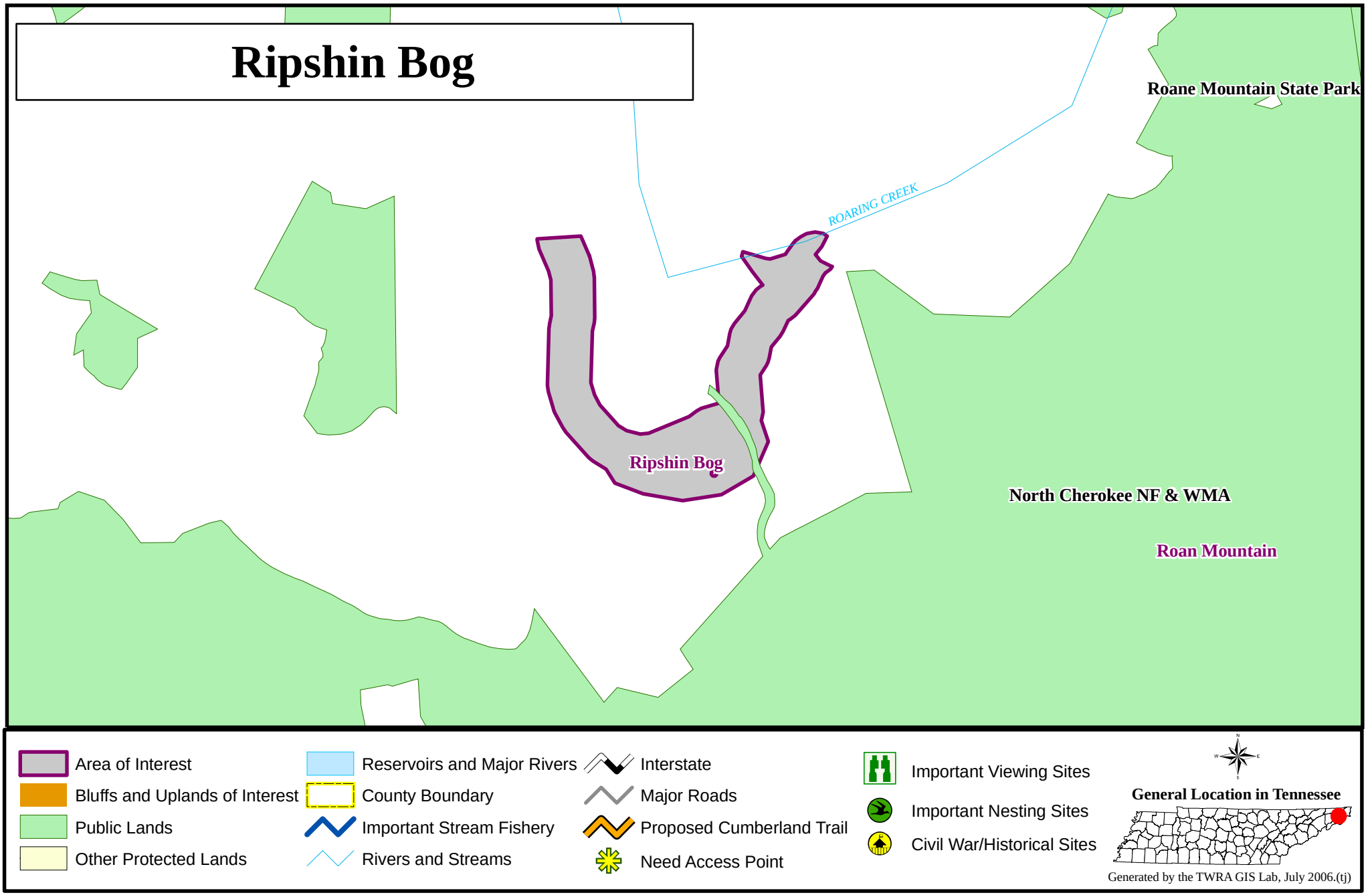
Description - This 534 acre site is at an elevation of 3,580 feet in the Blue Ridge Mountains physiographic province southwest of Roan Mountain. The site is a private in-holding within Cherokee National Forest. It is located at the upper end of the Roaring Creek drainage. It is a relatively undisturbed wetland situated in a valley between Roan Mountain and Ripshin Ridge. The upper section of the wetland is more open with fewer woody plants, while the lower section has dense shrubs. The lower portion of the bog between the upper end of Ripshin Lake and the St. John's home is wetter and less disturbed than the upper section adjacent to a pasture which has impacted the site.

Significance - This site is of the Southern and Central Appalachian Bog and Fern ecological system type. This type of wetland habitat is extremely rare in Tennessee and provides critical habitat for the southern bog turtle (*Clemmys muhlenbergii*) a globally rare species. A very high degree of biodiversity can be found at Ripshin Bog. Plants found at this site include spinulose shield fern (*Dryopteris carthusiana*, G5/S1), crested shield fern (*D. cristata,* G5/S2), round-leaved watercress (*Cardamine rotundifolia,* G4/S2S3), hairy willow-herb (*Epilobium ciliatum,* G5/S1), linear-leaved willow-herb (*Epilobium leptophyllum,* G5/S1), marsh bellflower (*Campanula aparinoides*, G5/S2), longleaf stichwort (*Stellaria longifolia,* G5/S1), trailing stitchwort (*S. alsine*, G5/S1), long-bracted green orchis (*Coeloglossum viride* var. *virescens*, G5T5/S1) and fowl bluegrass (*Poa palustris*, G5/S1). A reintroduced population of southern bog turtle, a threatened species (S1/G3) also occurs at this site and is monitored by the Knoxville Zoo. The turtles are surviving and breeding but are just reaching reproductive age. The wetland flora of this site is diverse including many sedges, rushes and grasses. The woody taxa are more typical of northern areas of the US. Many of the plants here are at the southern limits of their range. The lake was built in 1947 and has since become a stopover for migratory birds including Bonapartes gull, pied-billed grebe, horned grebe, double-crested cormorant, and common loon.

Strategy - A cooperative management agreement has existed at this site for many years between TNC, TWRA, the Knoxville Zoo and the St. John family. Mr. St. John passed away in the past year or two and the children of the family have not decided what to do with the property. The fact that 10 state-listed plants and a globally rare turtle occur at this one site creates a unique opportunity to put in place some type of permanent protection for these rare elements. The fact that it is near a State Park and borders a National Forest should make management and planning activities much less burdensome.

Land Protection Needs - 156 acres for primary wetland area at a cost of $300,000 or 534 acres for the entire site at a cost of $1,500,000.

Potential Partners - St. John family, TNC, TWRA, Knoxville Zoo, and USFS.


Ripshin Bog
Roane Mountain State Park
ROARING CREEK
Ripshin Bog
North Cherokee NF & WMA
Roan Mountain
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

ROAN MOUNTAIN STATE PARK

Location – (N36.1629, W82.1199) Roan Mountain State Park is located at the base of Roan Mountain in Carter County, near the town of Roan Mountain.

Significance - Roan Mountain State Park is part of an area that is rich in cultural history. In September 1780, the Overmountain Men trekked through what is now the park on their way to the Battle of King's Mountain in South Carolina.

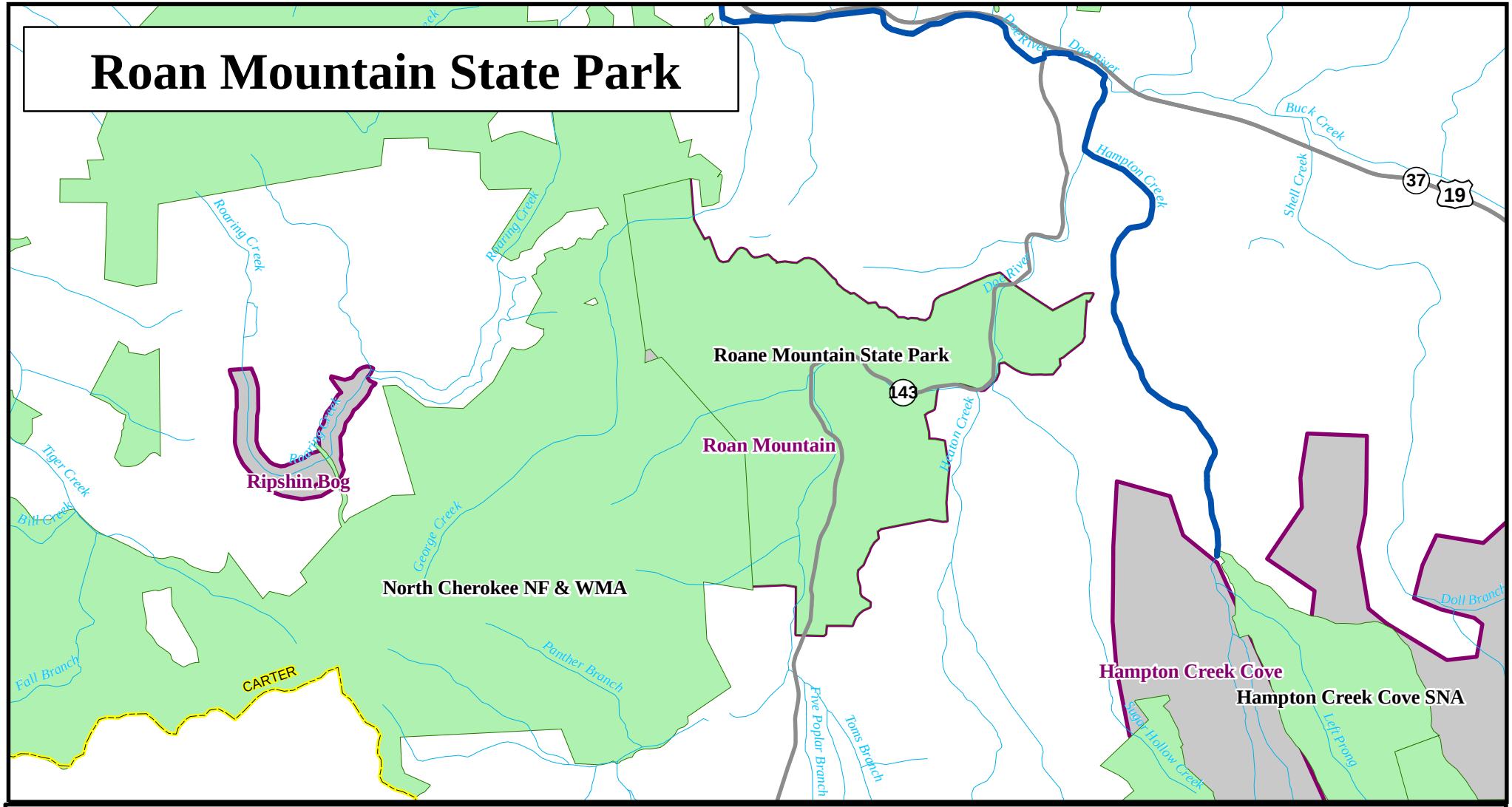
The park has a modern conference center, 30 cabins, swimming pool, picnic areas, and an 87 site modern campground. The park also has a gift shop, museum and hiking trails. The park also manages the Miller Homestead. This site is an existing early 20th century farmstead atop Strawberry Mountain.

Strategy - The strategy for future acquisitions for Roan Mountain State Park is to acquire in holdings and properties surrounding the park for watershed protection and properties that contain representative forest cover that further the wildlife, aesthetics, interpretive and recreation missions of Roan Mountain State Park.

Land Protection Needs – 468 acres at an estimated cost of $1,220,000.

Potential Partners – TCF and TNC.

Roan Mountain State Park



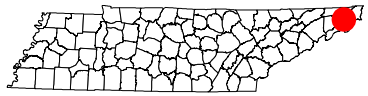
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands

Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams

Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point

Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites

General Location in Tennessee



Generated by the TWRA GIS Lab, July 2006.(tj)

ROCKY FORK

Location – (N36.0613, W82.5843) The Rocky Fork project area is located seven miles east of Erwin on old Hwy 23 in Greene and Unicoi Counties.

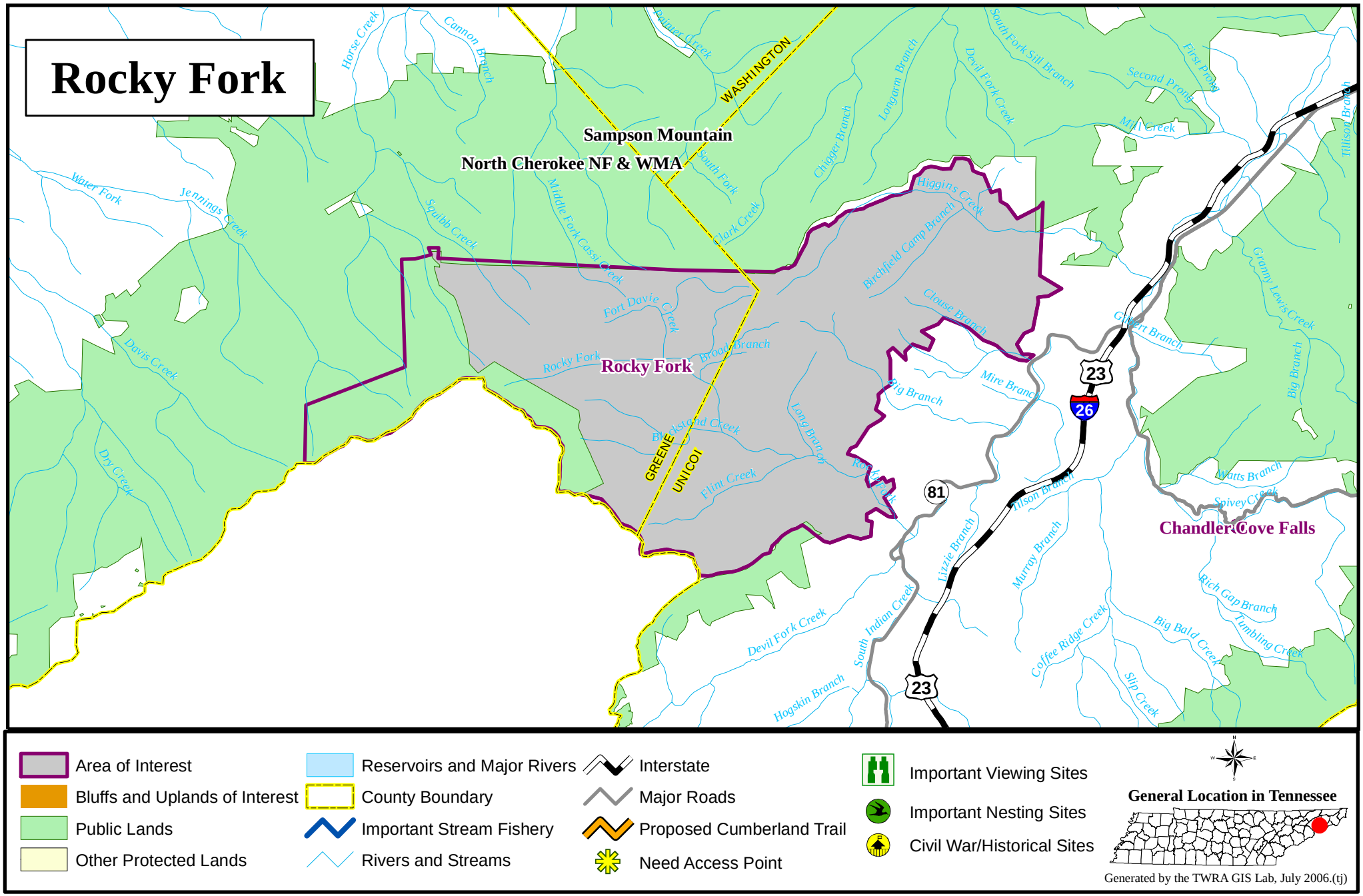
Description - The Rocky Fork tract is one of the largest unprotected but undeveloped and pristine forested areas remaining in the rugged chain of the Appalachian Mountains. Rocky Fork harbors miles of native brook trout fisheries and the area has rugged outcroppings and ridgelines featuring breathtaking views of distant mountain ranges and valleys including the Nolichucky River Valley in Unicoi and Greene Counties. The area is critical wildlife habitat for black bear, white-tailed deer, wild turkey, peregrine falcon and many other species. Much of its boundary adjoins National Forest lands, including the Sampson Mountain Wilderness. The Appalachian Trail, a National Scenic Trail, is situated along the western boundary of Rocky Fork. Acquisition of Rocky Fork would close a substantial gap in public lands along the new scenic Hwy. 23 Corridor (soon to be designated I-26), enhance protection to the Appalachian Trail and Sampson Mountain Wilderness, preserve a large expanse of critical watershed, wildlife habitat and aesthetic beauty while expanding recreational opportunities, such as hiking, mountain biking, hunting and fishing.

The tract's northern boundary lies along the crest of Rich Mountain adjoining the Sampson Mountain Wilderness and features stunning views of distant mountain ranges and valleys in Tennessee, North Carolina and Virginia. Elevations of this tract range from 2,200 feet in the valleys to 4,400 feet on Higgins Ridge at Frozen Knob. Ridgetops, rugged terrain, abundance of water and a mixture of hardwoods and evergreens provide excellent critical habitat for a variety of native fish and wildlife.

The Forest Service has sought the acquisition of Rocky Fork for many years, but since the development of the Hwy. 23 corridor, ownership of this large private holding has changed twice within the last four years. Thus far, purchasers have not brought development to this wild area. With each transaction, combined with the expected completion of the Hwy. 23 Corridor linking the Tri-Cities in Tennessee to Asheville in North Carolina, development of Rocky Fork becomes an increasing possibility. Should this happen, an opportunity to preserve such a magnificent mountainous area will be lost forever.

Land Protection Needs – 9,925 acres in one tract at an estimated cost of $30,000,000.

Potential Partners – TNC, TCF, TWRA, USFS, TWF, the State Historian, the Southern Appalachian Highlands Conservancy, Southern Appalachian Forest Coalition, Southern Environmental Law Center, Partners of Cherokee National Forest, East Tennessee Sportsmen's Federation, Outdoorsmen, Inc., Cherokee Road and Gun Club, NE Tennessee Mountain Bike Association, Cherokee Chapter Trout Unlimited, Greene County Fishing and Hunting Club, and the Appalachian Trail Conference (ATC) and its associated Tennessee hiking clubs, the Tennessee Eastman Hiking Club and Smoky Mountains Hiking Club.


Rocky Fork
Sampson Mountain
North Cherokee NF & WMA
Rocky Fork
WASHINGTON
GREENE
UNICOI
Chandler Cove Falls
Horse Creek
Cannon Branch
Palmer Creek
Chigger Branch
Longarm Branch
Devil Fork Creek
South Fork Sill Branch
First Prong
Second Prong
Mill Creek
Tillison Branch
Water Fork
Jennings Creek
Squibb Creek
Middle Fork Cassi Creek
South Fork
Clark Creek
Higgins Creek
Birchfield Camp Branch
Clouse Branch
Granny Lewis Creek
Gilbert Branch
Big Branch
Mire Branch
Fort Davie Creek
Broad Branch
Davis Creek
Dry Creek
Blackstock Creek
Long Branch
Flint Creek
Rocky Fork
Watts Branch
Spivey Creek
Tilson Branch
Lizzie Branch
Murray Branch
Rich Gap Branch
Tumbling Creek
Big Bald Creek
Coffee Ridge Creek
Slip Creek
South Indian Creek
Devil Fork Creek
Hogskin Branch
23
26
81
23
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

SENSABAUGH CAVE

Location - (N35.6911, W84.6928) Sensabaugh Cave is located in Meigs County. The mouth is found 2.2 miles northwest of Ten Mile and 1.3 miles south of Maple Grove Church, in a sinkhole on the side of a hill, at an elevation of 830 feet.

Description - According to Barr (1961): "The mouth, which is 8 feet high and 20 feet wide, opens into a room 25 feet wide, 10 feet high, and 100 feet long. A small passage leads downdip past a 30-foot dome to the stream. From here a low, wide crawl leads into a room 10 feet high, 20 feet wide, and 120 feet long. Beyond this room the cave continues 30 feet farther as a crawlway and ends in breakdown. The stream contains many deep pools and is accessible through several adits {horizontal passage} extending downdip. A few dripstone formations are developed, and the cave is damp and muddy. It trends S. 30^{o} W."

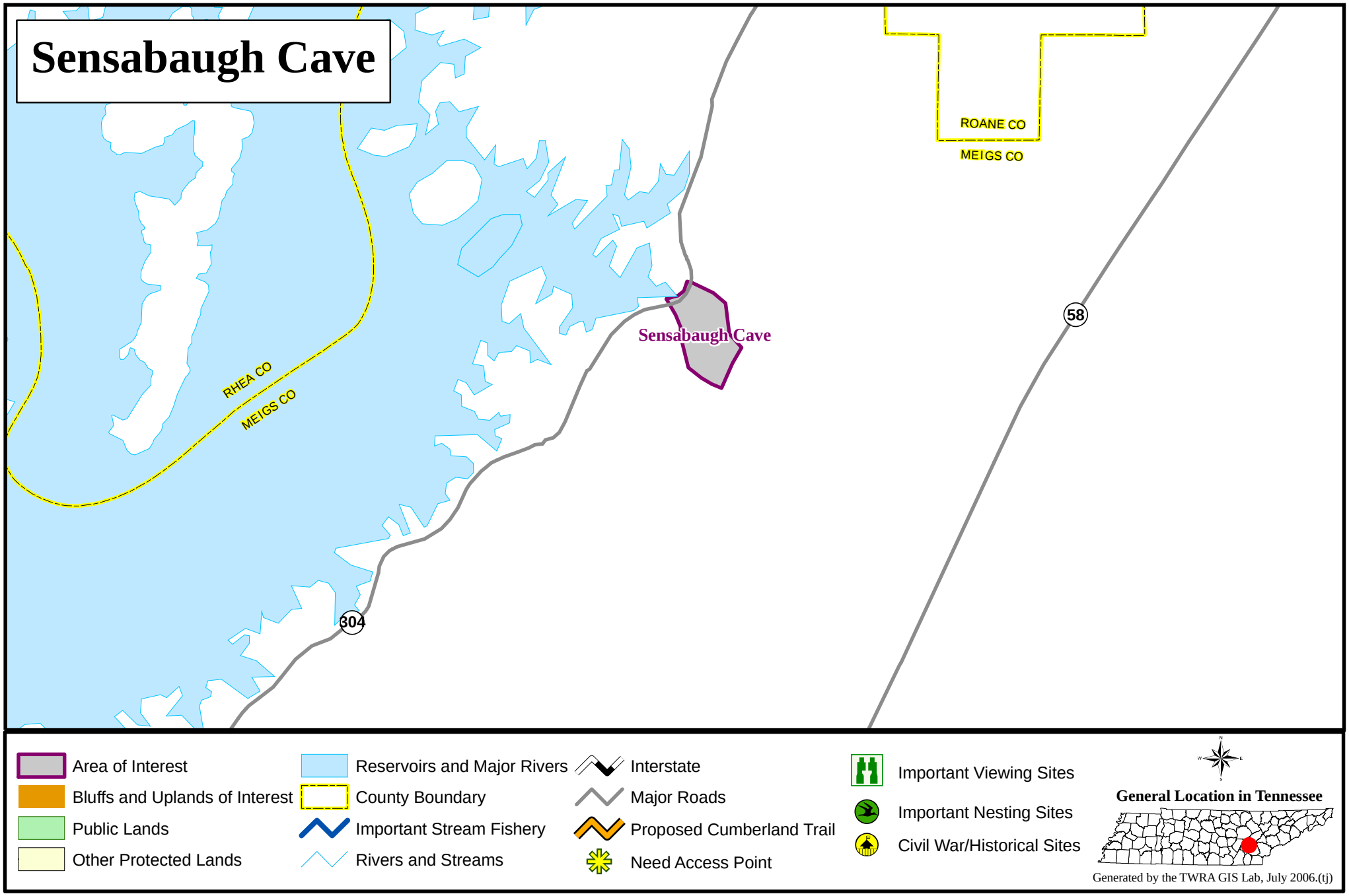
Significance - Sensabaugh Cave is home to a large but fluctuating colony of the state and federally endangered gray bat (*Myotis grisescens*). The summer roost has been estimated to contain as many as 8,000 gray bats since 1982, though the most recent count indicated only 340 (Harvey & Britzke, 2002).

Strategy - As with any inflow cave, protecting the watershed draining into it is key to maintaining the integrity of the cave. The presence of any large bat colony often implies an accompanying complex of dependent cave-obligate invertebrates, though this has not yet been determined for Sensabaugh Cave. Key to maintaining the bat roost, however, is proper control of human access to the cave at certain times of year, and establishment and management of a large forested buffer at the cave entrance. Establishment of a forested buffer to the nearby Watts Bar Lake also is prudent. In the short term, a relatively few acres can be protected surrounding the mouth of the cave, and maintained in native hardwoods, as appropriate. The core area (and subsequent expansions) may be protected through binding conservation easements or fee simple ownership. Comprehensive surveys of all biota in Sensabaugh Cave should be undertaken to augment what is currently known of the bat roost.

Aquatic cave animals likely are subject to negative impacts from excessive sedimentation, fertilizer, pesticides, animal waste, chemical spills, and agricultural & silvicultural runoff. A primary goal for any population is to control to the greatest extent possible the contributing sources in the recharge area supporting their cave habitats. The balance of the recharge area should be likewise protected through various means, including but not limited to the implementation of proper agricultural and silvicultural BMP's. Regular water quality monitoring within the cave should be part of the site's management.

Land Protection Needs – 65 acres (core area of 5 acres plus an additional 60 acres to protect the recharge area) at an estimated cost of $100,000.

Potential Partners - USFWS, TWRA, TNC, TDEC


Sensabaugh Cave
ROANE CO
MEIGS CO
RHEA CO
MEIGS CO
Sensabaugh Cave
58
304
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

SMITH BEND & HIWASSEE REFUGE

Location – (N35.5640, W84.8247 and N35.3872, W84.9789, respectively) The Smith Bend and Hiwassee Refuge projects are located on the Tennessee River in Rhea and Meigs counties approximately fifty miles upstream from Chattanooga and five miles below Watts Bar Dam.

Description – The projects consists of a variety of habitats including a significant amount of wetlands, prior converted wetlands, uplands and lowland riparian areas. Prior to the establishment of several upstream dams, the areas historically consisted of bottomland hardwoods and lands converted to agriculture that were subject to variable natural flooding regimes based on precipitation events and their proximity to the river. River flow is now regulated so the flooding regimes are greatly altered, although much of the areas are still subject to some infrequent flooding.

Significance – The eastern Tennessee River Valley is an important migratory corridor for numerous waterfowl species and is especially important for black ducks and wood ducks. Much of the habitat for these species has been lost over the past few decades with the increased development of the areas along the river system for homes and industrial sites.

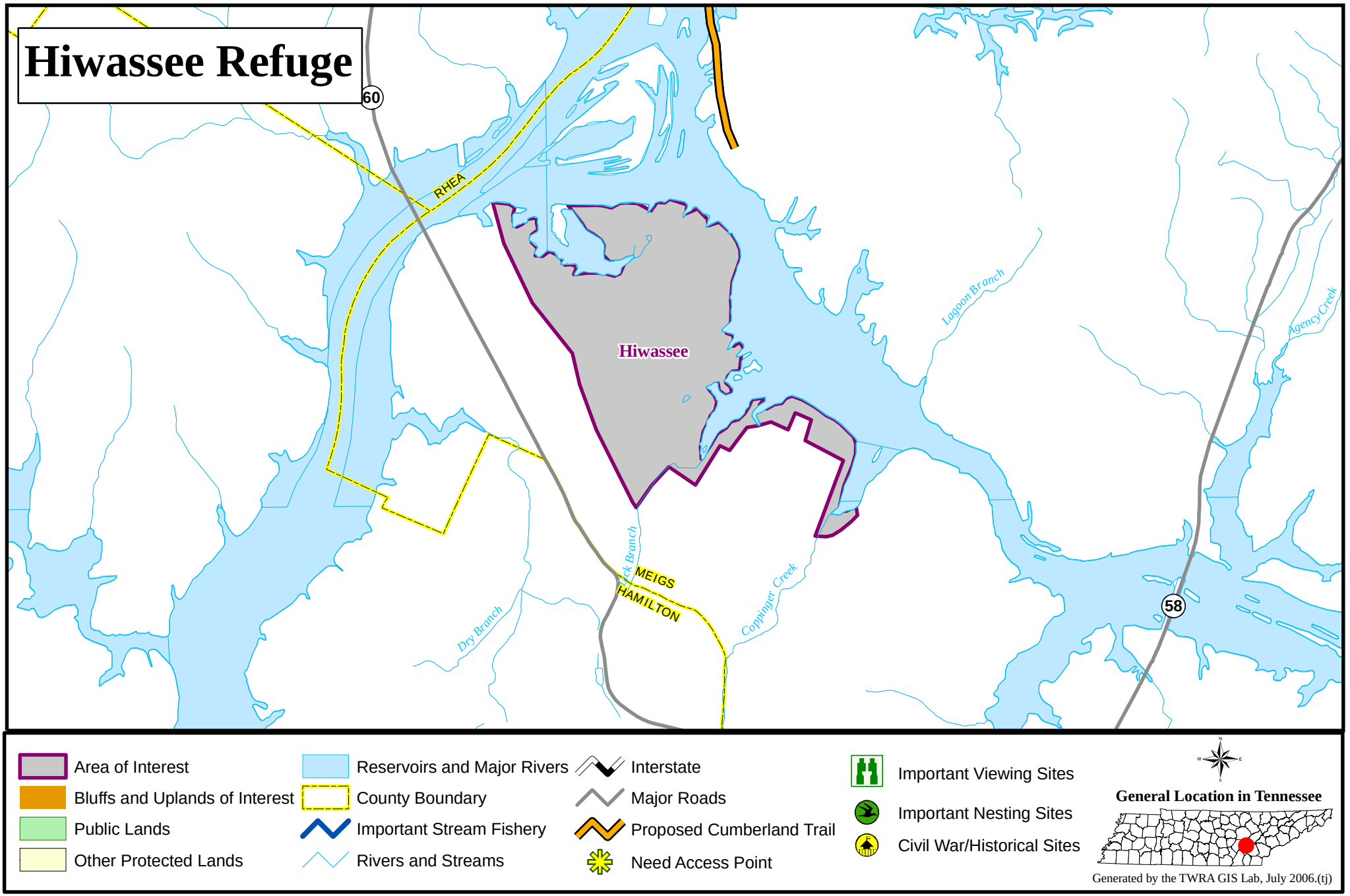
Protection of these areas and subsequent enhancement activities will provide habitat for the above mentioned species of concern as well as other species such as Swainson's warbler, Louisiana waterthrush, Acadian flycatcher, prothonotary warbler, American woodcock, wood thrush, and Kentucky warbler, all of which are identified as high-priority. Restoration of native grass and early successional habitats will provide important habitat benefits for a number of species requiring these habitats, including blue-winged warbler, bobolink (transient), northern bobwhite quail, field sparrow, eastern meadowlark, and orchard oriole.

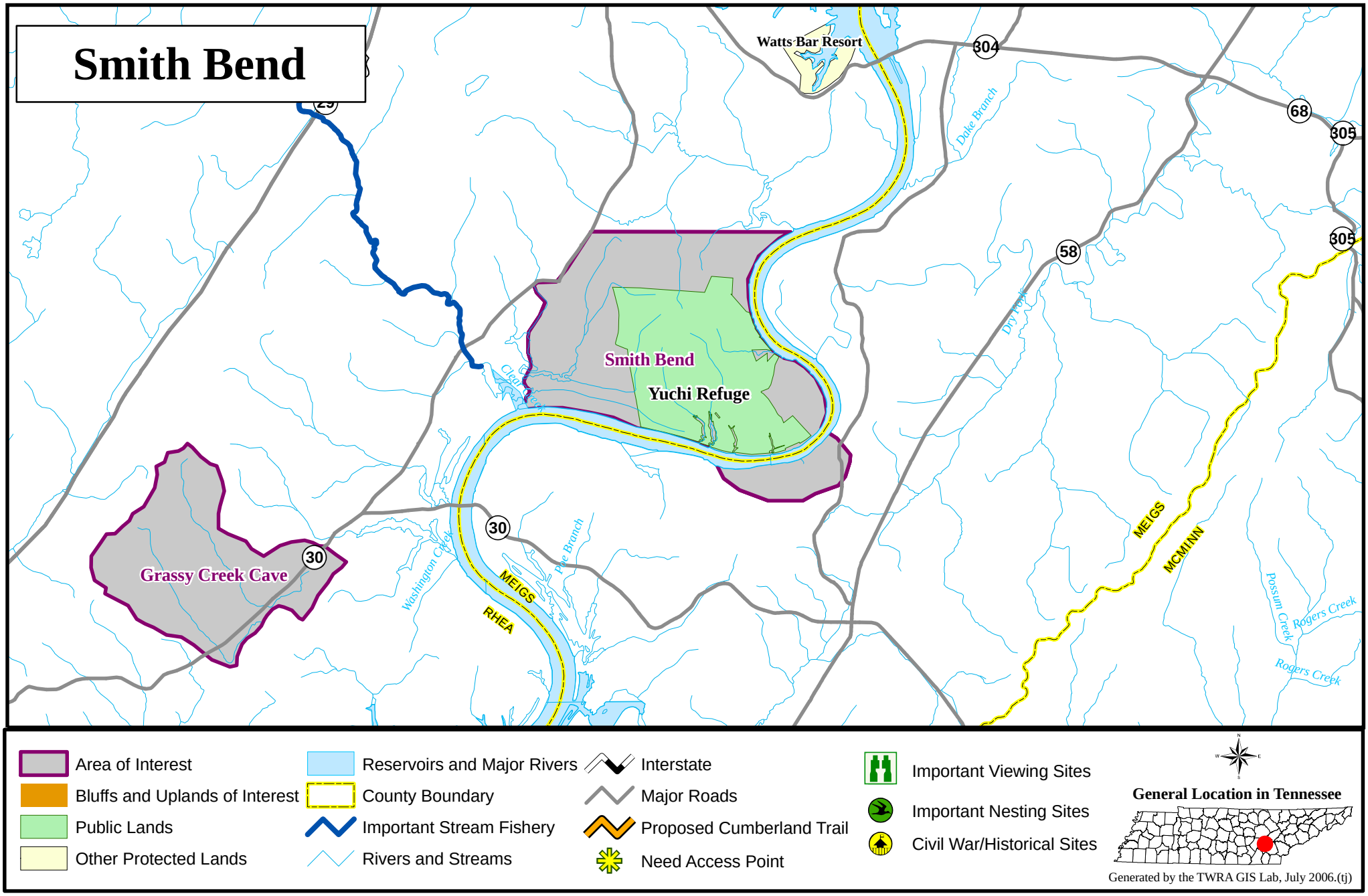
Migrating sandhill cranes have become an increasingly important species in the project areas, utilizing the wetland and wetland-associated habitats at Hiwassee Refuge and adjoining areas for stopover and wintering habitat. Currently, more than 10,000 sandhill cranes utilize the area each winter. The wetland restoration activities proposed for these areas will provide additional stopover and wintering habitat for this species. The project areas have also become instrumental in providing stopover migration habitat for the whooping crane reintroduction effort in the eastern US. TWRA is cooperating with the Whooping Crane Eastern Partnership to make this important stopover site available for this reintroduction effort.

The projects will have positive habitat benefits for other federally endangered or threatened species, including the bald eagle and five species of mussels. The projects will also benefit at least two state listed rare species.

Land Protection Needs - 1,000 acres at an approximate cost of $3,530,000

Potential Partners – TCF, TOS DU, Foothills Land Conservancy , TCF, and TWRA


Hiwassee Refuge
60
RHEA
Hiwassee
Lagoon Branch
Agency Creek
MEIGS
HAMILTON
Dry Branch
Coppinger Creek
58
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)


Smith Bend
Watts Bar Resort
304
68
305
58
30
Smith Bend
Yuchi Refuge
Grassy Creek Cave
Duke Branch
Dry Fork
Clear Creek
Washington Creek
Poe Branch
MEIGS
RHEA
MCMINN
Possum Creek
Rogers Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
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Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
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SNAKE MOUNTAIN

Location - (N36.3333, W81.7073) Snake Mountain is located on the border of Johnson County, Tennessee and Watauga County, North Carolina, approximately 1.8 miles east of Zionville.

Description - Snake Mountain comprises 720 acres with approximately half in Tennessee, and is part of a double-peaked mountain to the east of the main Appalachian Mountain range (and east of the Cherokee National Forest). Two peaks comprise Snake Mountain, Snake Peak at 5518' and Meat Camp rises to 5560'. Lower and mid slopes of Snake Mountain have been cleared for pasture, but the upper slopes have natural plant communities intact and include northern hardwood forests and granite rock outcrop communities which allow for grand views.

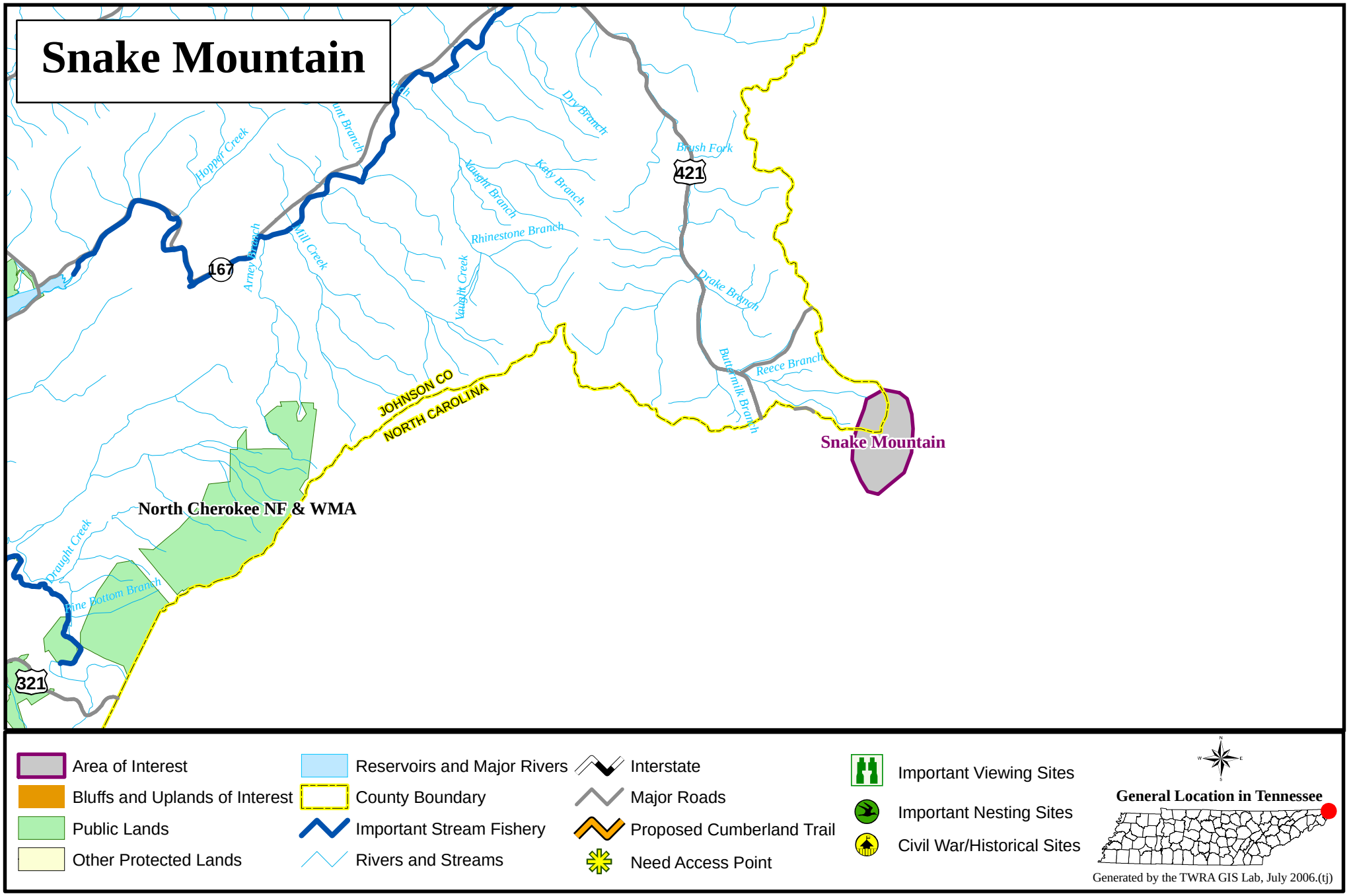
Significance - Biodiversity significance, very high to high. As with other locations in the southern Blue Ridge Mountains, the high elevations of Snake Mountain support habitats and species more common to the northeastern US, but rare further south. Such habitats include mountain woods, high-elevation forests, rocky bluffs, granite outcrops, mountain balds, and mashes and bogs. Twelve state-listed plant species are found in these habitats, and within Tennessee, most of these species are limited to the Blue Ridge Mountains and are considered rare and imperiled (S1 or S2). At least three of the state-listed plants, *Polygonum cilinode* (fringed black bindweed), *Prunus virginiana* (choke cherry), *Veronica americana* (American speedwell) have three or less extant occurrences in the state. *Cardamine clematitis* (mountain bittercress) grows in high elevation seeps. This plant is not only rare in Tennessee, but ranked as globally rare and perhaps imperiled.

There is a putative occurrence of *Corvus corax* (common raven) a state-threatened bird, and given the location and habitat of Snake Mountain, this seems likely. Presently in Tennessee, the species is restricted to the far eastern mountains and nests on narrow ledges often protected by overhanging rocks.

Strategy - TDEC files contain information on past landowners and this should be updated. TDEC should contact the North Carolina Division of Natural Heritage in order to learn of any biological surveys or conservation action within that section of Snake Mountain. Ornithologists should be contacted in order to confirm the presence of ravens and any other birds of interest.

Land Protection Needs – ~360 acres at an estimated cost of $750,000.

Potential Partners - TDEC, TWRA, TNC, TOS, Cherokee National Forest, Pisgah National Forest (North Carolina), and North Carolina Division of Natural Heritage.


Snake Mountain
Hopper Creek
Dry Branch
Brush Fork
Katy Branch
Vaught Branch
Rhinestone Branch
Vaught Creek
Mill Creek
Arney Branch
Drake Branch
Buttermilk Branch
Reece Branch
167
421
JOHNSON CO
NORTH CAROLINA
Snake Mountain
North Cherokee NF & WMA
Draught Creek
Pine Bottom Branch
321
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

SYCAMORE SHOALS STATE HISTORIC PARK

Location – (N36.3445, W82.2590) Sycamore Shoals State Historic Park is located in Carter County on U.S. Highway 321, in Elizabethton.

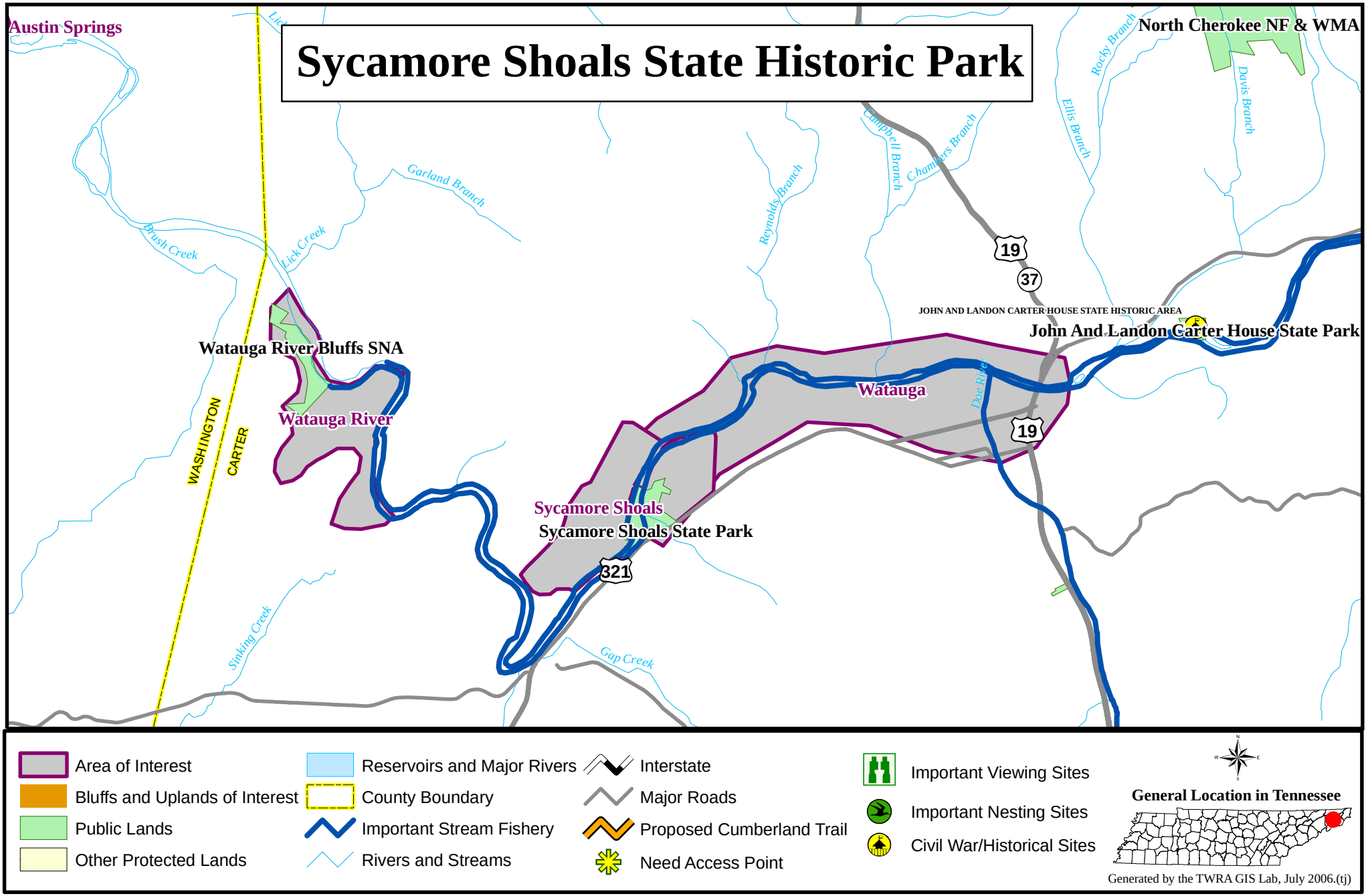
Significance - Sycamore Shoals is the site of the first permanent American settlement outside the original 13 colonies. It was here that the Watauga Association, the first majority-rule system of American democratic government was formed in 1772, when settlers elected five of their number to "govern and direct for the common good of all the people." These Articles of the Watauga Association invested in those elected representatives the legislative, judicial and executive functions of their fledgling government.

Sycamore Shoals is perhaps the most historically significant site in Tennessee. Sycmore Shoals played a pivotal role in not only Tennessee history but in the American Revolution. Today this site, preserved as a Tennessee State Park, invites visitors to relive history and enjoy a variety of historical, cultural and recreational experiences.

Strategy - The strategy for future acquisitions for Sycamore Shoals State Historic Park is to acquire properties surrounding the park for watershed protection and properties that have significant cultural and natural features that further the wildlife, aesthetics, interpretive and recreation missions of Sycamore Shoals Historic Area.

Land Protectin Needs – 201 acres at an estimated cost of $660,000.

Potential Partners TCF,TDEC, and, TNC.


Sycamore Shoals State Historic Park
Austin Springs
North Cherokee NF & WMA
Rocky Branch
Davis Branch
Ellis Branch
Campbell Branch
Chambers Branch
Reynolds Branch
Garland Branch
Brush Creek
Lick Creek
19
37
JOHN AND LANDON CARTER HOUSE STATE HISTORIC AREA
John And Landon Carter House State Park
Watauga River Bluffs SNA
Watauga River
Watauga
Doe River
19
WASHINGTON
CARTER
Sycamore Shoals
Sycamore Shoals State Park
321
Sinking Creek
Gap Creek
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

TUCKAHOE CREEK STATE SCENIC RIVER

Location – (N35.9869, W83.6360) Tuckahoe Creek is a tributary to the Lower French Broad River which contains parts of Cocke, Jefferson, Knox and Sevier Counties and drains 798 square miles before emptying into Fort Loudon Reservoir. Approximately 16 miles of Tuckahoe Creek in Sevier and Knox Counties from its confluence with the French Broad River upstream to its main stem headwaters was designated as a Class III State Scenic River in 1968.

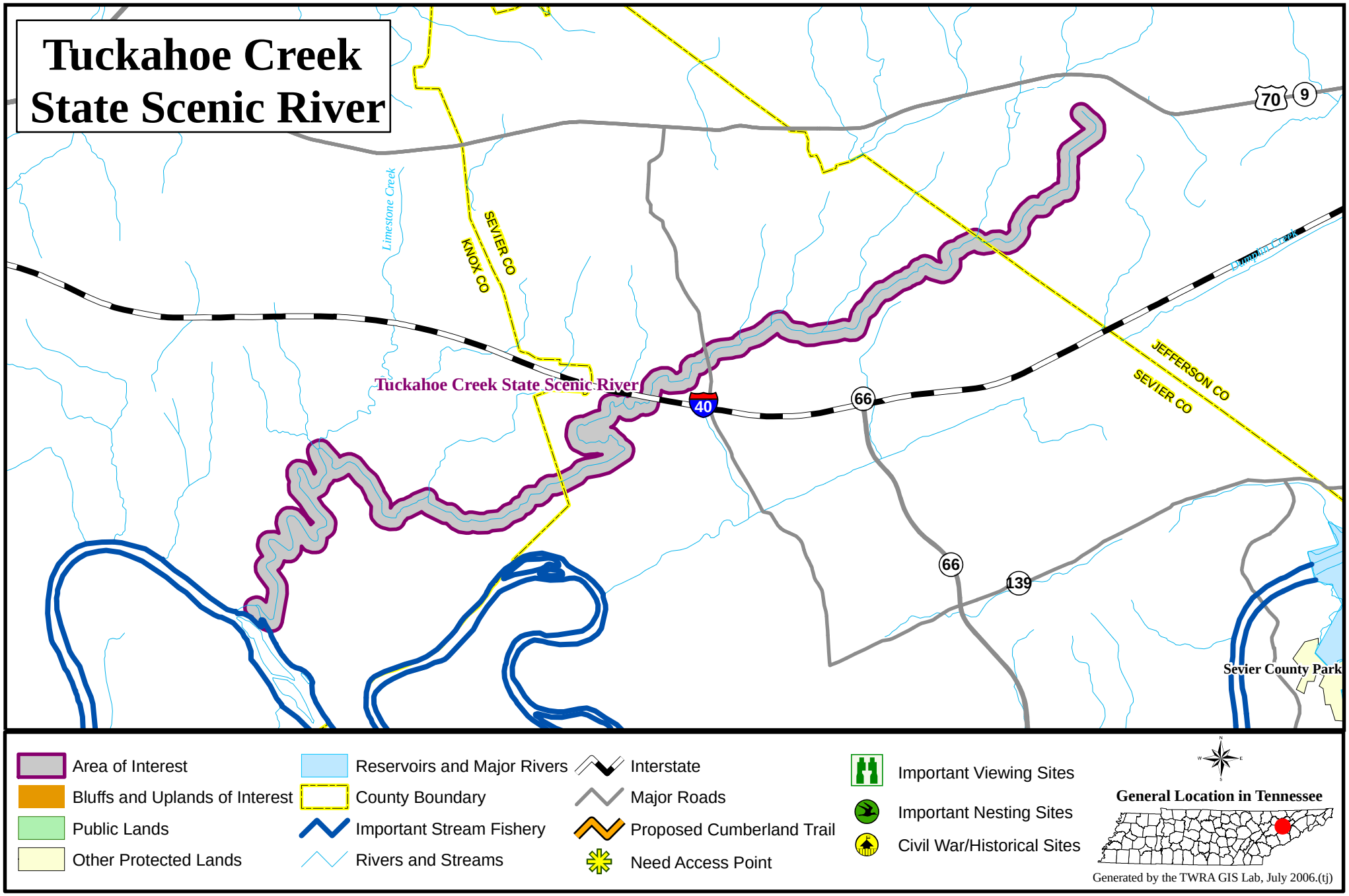
Description - Tuckahoe Creek originates north of Hwy 70 and flows some 16 miles southwesterly crossing Hwy 70 and I-40 before emptying into the French Broad River. The river flows through a landscape of rural and pastoral uses, with a mix of forested area and open lands.

Significance - The 1998 Tennessee Rivers Assessment Summary reported that Tuckahoe Creek's natural and scenic qualities were of local significance and its recreational fishery was of good.

Strategy - The site conservation plan for Tuckahoe Creek State Scenic River follows the guidelines of the State Scenic River Act and identifies a corridor of no more than 450 feet from the usual banks of the river on each side. Additionally, connecting contiguous protected areas to state and other publicly owned lands along the entire river corridor are a major approach toward protecting the Tuckahoe Creek and making it a scenic greenway. Methods for conserving these areas are by fee title purchases, conservation easements, landowner assistance programs, and conservation buyers. Public and private partnerships are key to protecting and maintaining this relatively unspoiled river. Acquisition of key tracts for public access and use will be strategically targeted.

Land Protection Needs – 100 acres at an estimated cost of $300,000

Potential Partners - TDEC, TWRA, TNC, USFWS, USFS, TVA, USACE, County Governments, Private Corporations, Foundations, Individual Donors.


Tuckahoe Creek
State Scenic River
Limestone Creek
SEVIER CO
KNOX CO
Tuckahoe Creek State Scenic River
JEFFERSON CO
SEVIER CO
70
9
40
66
66
139
Sevier County Park
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
Important Nesting Sites
Civil War/Historical Sites
General Location in Tennessee
Generated by the TWRA GIS Lab, July 2006.(tj)

WALKERTOWN BRANCH BOG

Location – (N36.0269, W84.4052) Walkertown Branch Bog is located in Polk County west of Ducktown, 0.3-0.4 miles south of the railroad crossing.

Description - Located on the Blue Ridge Physiographic Province, the site is an open wetland historically used as a pasture. Herbaceous cover includes rushes, partridge pea, broomsedge, bush bluestem, and bull rushes covering a mat of cranberry.

Significance – Site Importance High (B3) – This southern bog type is rare in the state and may be a remnant of glacial influence.

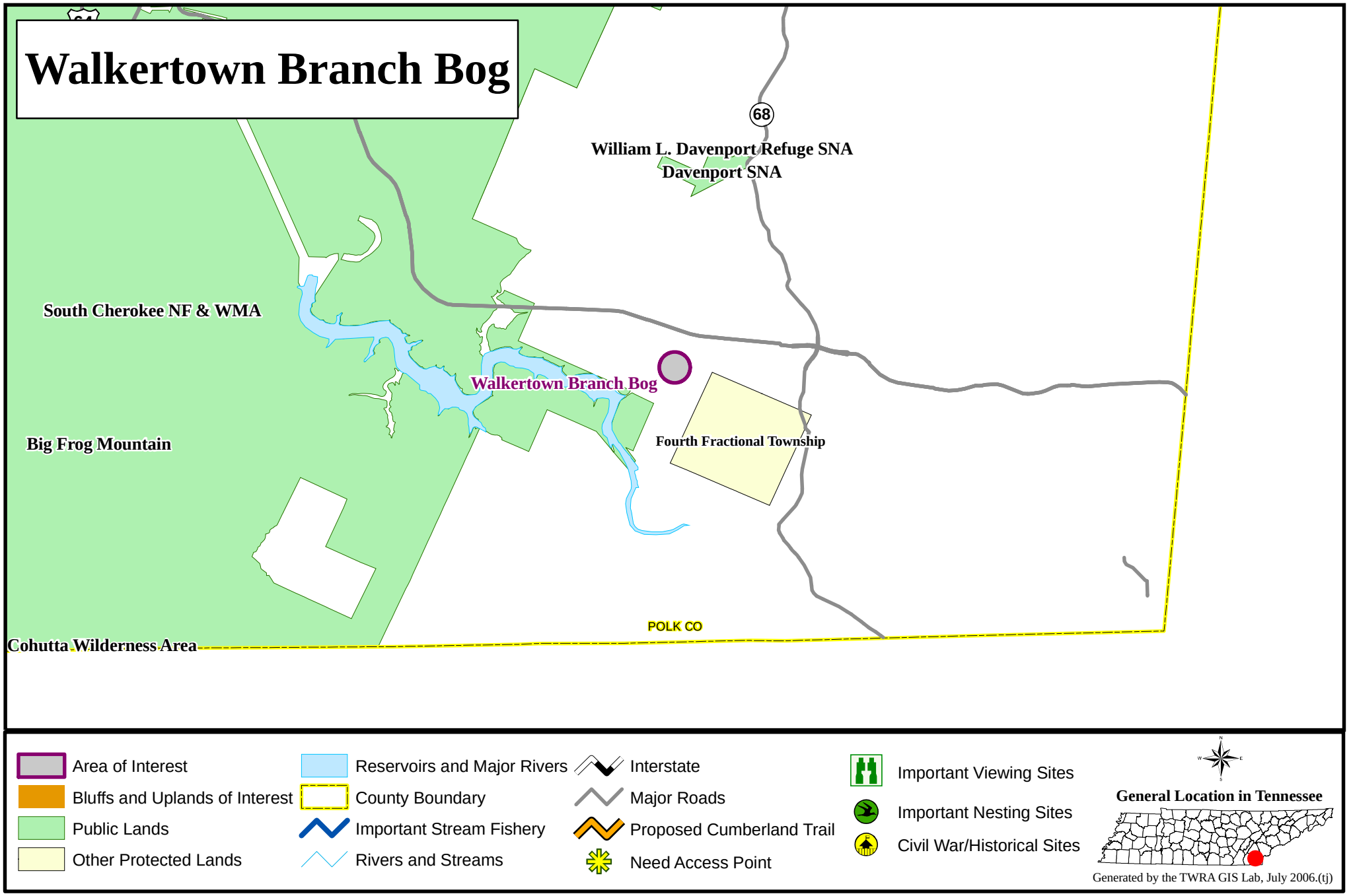
The site is ecologically significant for its population of large cranberry (*Vaccinium macrocarpon*), which is listed as threatened in the state.

Strategy - The strategy for acquisition at Walkertown Branch Bog is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare species and wildlife will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs – 46 acres at an estimated cost of $80,000.

Potential Partners – TDEC

Walkertown Branch Bog



WATAUGA RIVER ACCESS AND HATCHERY

Location – (N36.3552, W82.2354) This project is located along the Watauga River adjacent to Sycamore Shoals State Park in northeast Tennessee in the city of Elizabethton, Carter County. (See Sycamore Shoals State Historic Park map)

Description – The property is part of the historic floodplain of the Watauga River, with 3,200 feet of river frontage. TVA dam operation no longer allows this property to flood. The site was used for a filtration plant operated by North American Rayon. Contaminated soil and abandoned structures remain on the property. The water supply to the filtration plant is safe and intact, providing access to a spring that can deliver 13 million gallons/day of 58^{o} F. This water has been tested and is suitable for a trout hatchery.

Significance – The Watauga River is recovering from decades of industrial abuse. As recent as the 1970s the river was dead. In the past 30 years water quality improvements have successfully restored aquatic life to the river, but much work is still needed. The entire watershed needs improvements and this site is an excellent place to start. Converting this property from an industrial spoil to multi-use, environmentally friendly area would be a major achievement for State of Tennessee, TWRA, and the City of Elizabethton.

According to TWRA's strategic plan this land should be acquired to provide public fishing access to the Watauga River where most of the river is in private ownership. The Watauga River has a great trout fishery that is visited annually by about 21,000 anglers and is valued at $836,000. More access would improve the value of this resource to anglers and the community. This access would also be part of a greenway that could be used by everyone, not just anglers.

TWRA intends to build a hatchery and educational center to benefit TWRA's trout program and the City of Elizabethton. TWRA's strategic plan identifies the need for an additional 100,000 pounds of trout to meet growing demand for trout programs. The City would benefit because a hatchery at this location would draw additional tourism and provide an aquatic education facility for schools in the surrounding counties. Existing TWRA hatcheries are visited by up to 30,000 people each year and these hatcheries do not have educational centers. The hatchery planned for this site will have an educational center that will be sure to draw thousands more visitors. The educational center will have access to the river and hatchery, making it a great place to teach visitors about fishing, aquatic resources, and the importance of functioning rivers and riparian zones. The economic impacts of hatchery operation and tourism will certainly benefit the community.

Land Protection Needs – 19.3 acres in 3 tracts at a cost of $212,000. TWRA currently has an option on this property. An additional tract of 5.6 acres will be donated for the construction of a trout hatchery by the City of Elizabethton.

Potential Partners – TWRA, USFWS, EPA, USFS, TVA, Trout Unlimited, Boone Watershed Partnership, and the governments of Elizabethton and Carter County**.** The City of Elizabethton and Carter County want to help TWRA develop this property. The City is donating 5.6 acres and selling the remaining tracts at appraised value. The City has also offered to receive effluent from the hatchery into the city's water treatment system. The County has offered prison labor for various tasks associated with the cleanup of the property.

TWRA will compete for funding from the Environmental Protection Agency to cleanup the site via grants authorized by Subtitle A of the "Small Business Liability Relief and Brownfields Revitalization Act". The award of these grants will be essential to the success of this project.

The U.S. Fish and Wildlife Service, National Hatchery System would annually provide disease-free trout eggs to be reared at the hatchery.

WATAUGA RIVER BLUFFS SNA

Location – (N36.3547, W82.2980) The Watauga River Bluffs are located in the Ridge and Valley in Carter County off Stream Plant Rd near the town of Watauga. (See Sycamore Shoals State Historic Park map)

Description - The Watauga River Bluffs most conspicuous feature is the steep slope that drops more than 200 feet to the Watauga River's edge. The slope and the narrow bluffs make up most of the 50 acres. A small cave is located at the northeast end of the property. No public access has been developed at this site as it is primarily conserved for the purpose of protecting the population of Carolina pink.

Significance - The ecology is noteworthy because Watauga River Bluffs supports the largest known population of the state listed Carolina pink (*Silene caroliniana*). This population is mostly concentrated in an open dry chestnut oak forest occurring on the west to south facing upper slopes. This community has white ash as an associate canopy species and a sub-canopy comprised of bitternut hickory, eastern red cedar, and serviceberry. This community has a sparse herbaceous layer. This is a succeeding forest that is estimated to be approximately 60 or more years old.

Strategy - Watauga River Bluffs currently protects only 50 acres of land in a narrow strip along the Watauga River immediately southwest of the Town of Watauga. The landform currently owned by the State includes the bluffs and a cave at the northeast end of the property. Several acres of interesting knobs (the Bogart Knobs) and deep draws lie just to the southwest, west and southeast of the current property boundary and include plant communities worthy of protection. Additionally, steep bluffs to the southeast of the current boundary, called the Betty Range Cliff, are worthy of protection.

Land Protection Needs - 343 acres at an estimated cost of $950,000.

Potential Partners - TDEC and TWRA.

WRIGHT WHITE PINE STAND REGISTERED SNA

Location – (N36.4988, W81.9297) Wright White Pine Stand is located in Johnson County on Sluder Rd approximately 10 miles west of Mountain City.

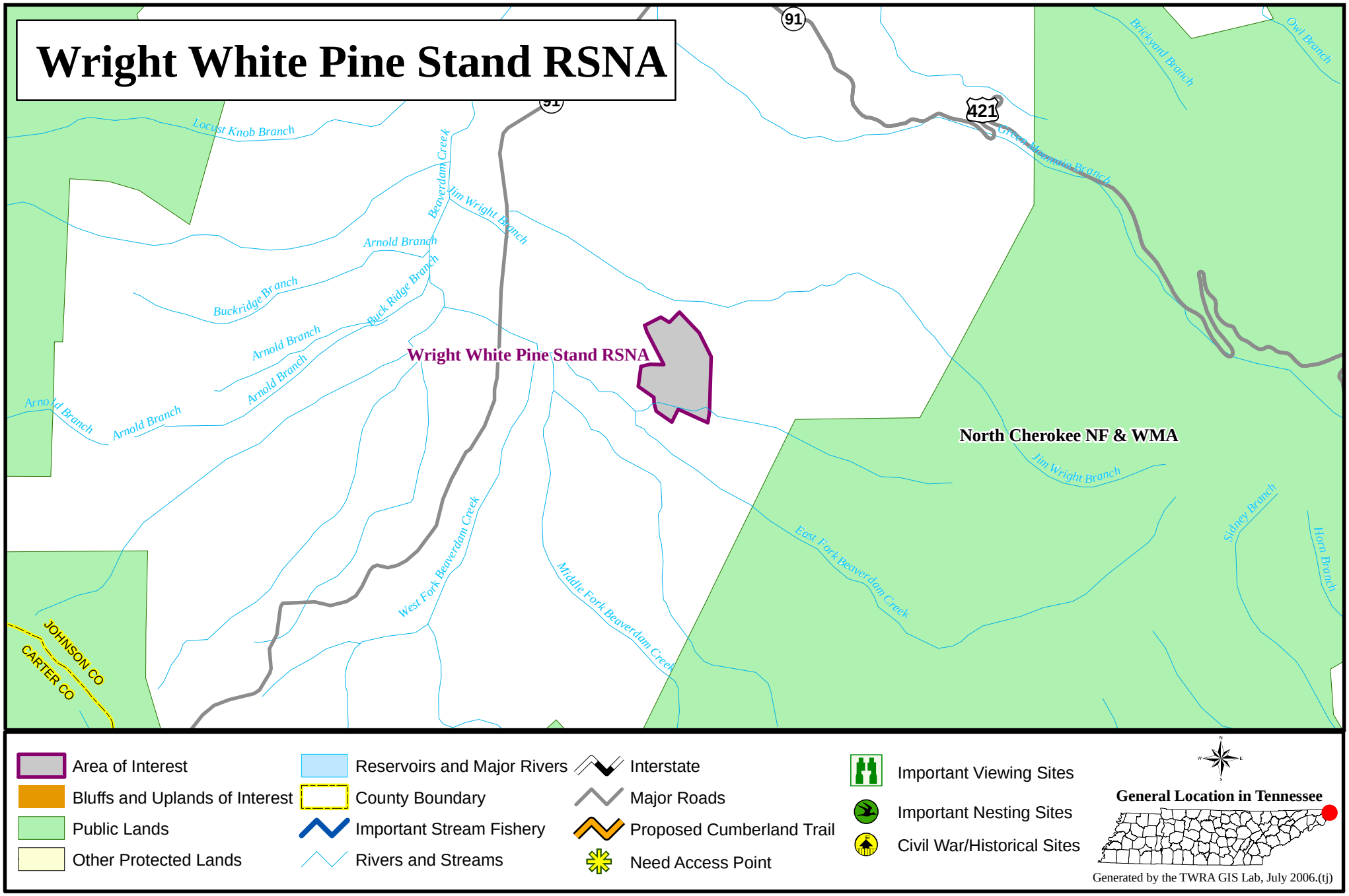
Description - Located in the Blue Ridge Physiographic Province, the site contains white pine and hemlock, 30-36 dbh, 120-130 feet high, and 100 years old. This white pine-hemlock stand is a fine example of the forest type, which was once widespread in northeast Tennessee. Although many of the trees have a dbh of greater than 30 inches, the forest is not virgin as the forests of Shady Valley were clearcut in 1917. Hardwood species, which are constituents of the canopy layer include chinkapin and northern red oak, blackgum, white ash, and American elm. The understory is quite open, but is composed primarily of rhododendron, with scattered individuals of buffalo-nut, dogwood, umbrella magnolia, and striped maple. Elevation is 2,875-2,930 feet and topography is slightly rolling.

Significance – Site Importance Moderate (B4) – Rare elements include the least weasel, hairy-tailed mole, star-nosed mole, and eastern woodrat.

Strategy - The strategy for acquisition at Wright White Pine Stand is to acquire properties within and adjacent to the site design (site boundary) for access or access control, watershed protection, and preservation of rare species and representative communities. Preservation of these rare species and wildlife will provide educational opportunities for area colleges, universities, and the general public, and work toward preserving Tennessee's natural heritage.

Land Protection Needs – 39 needed acres at an estimated cost of $125,000.

Potential Partners – TDEC, TDA, and TWRA.


Wright White Pine Stand RSNA
91
421
Locust Knob Branch
Beaverdam Creek
Jim Wright Branch
Arnold Branch
Buckridge Branch
Buck Ridge Branch
Arnold Branch
Arnold Branch
Arnold Branch
Arnold Branch
Wright White Pine Stand RSNA
North Cherokee NF & WMA
Brickyard Branch
Owl Branch
Green Mountain Branch
Jim Wright Branch
Sidney Branch
Horn Branch
East Fork Beaverdam Creek
West Fork Beaverdam Creek
Middle Fork Beaverdam Creek
JOHNSON CO
CARTER CO
Area of Interest
Bluffs and Uplands of Interest
Public Lands
Other Protected Lands
Reservoirs and Major Rivers
County Boundary
Important Stream Fishery
Rivers and Streams
Interstate
Major Roads
Proposed Cumberland Trail
Need Access Point
Important Viewing Sites
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